

# SPRING 1968

(FOR MARCH, APRIL AND MAY)  
Next issue June 1, 1968

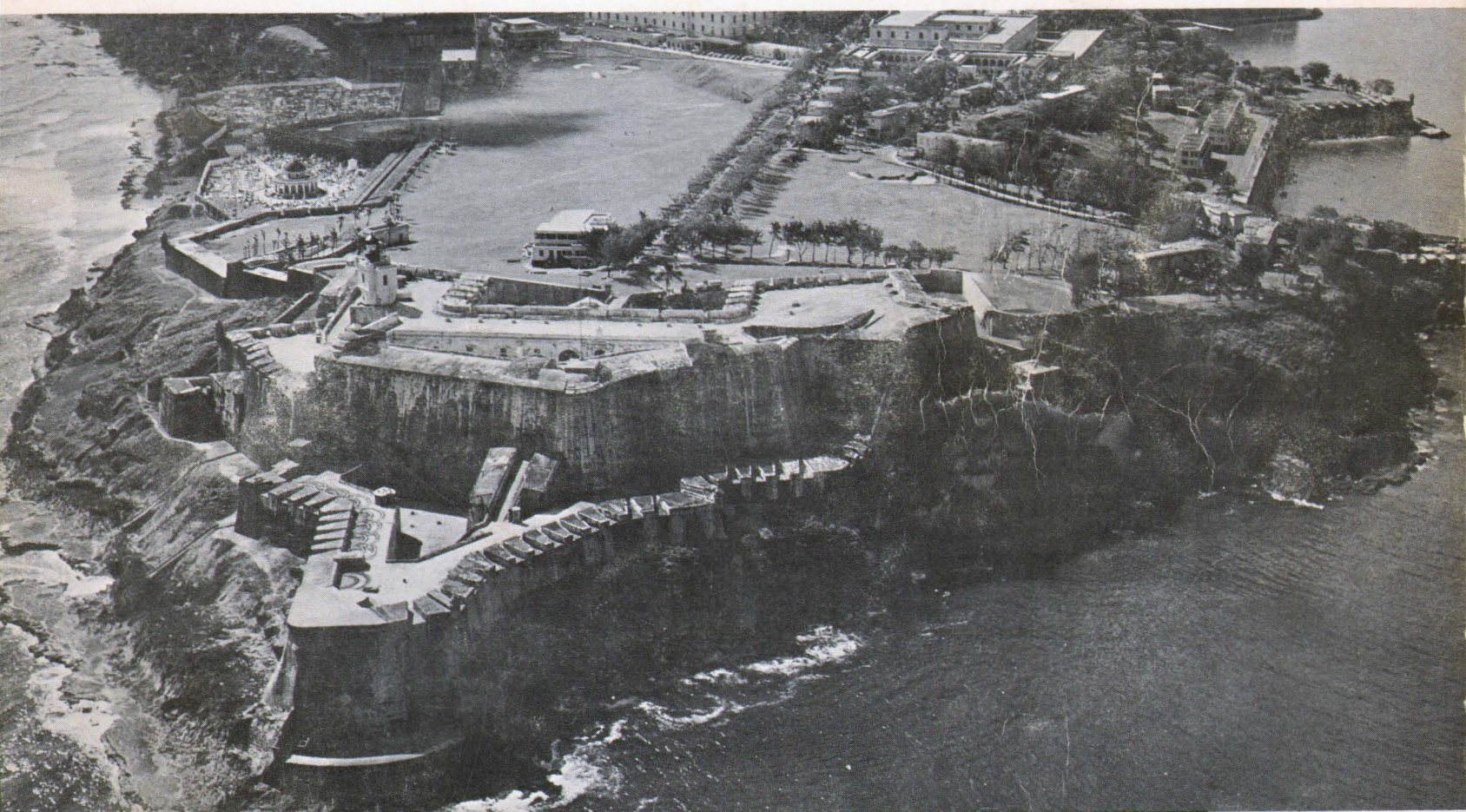
radio amateur

# callbook

magazine



United States Listings



## PUERTO RICO

Site of El Morro castle, a fortification started in 1539, completed in 1584, at the entrance to San Juan Bay, 140 feet above the sea. El Morro castle fought many battles against invaders and pirates during the colonial days. Today, it stands as a part of history and visitors can walk along its moat, examine its ancient cannons, much the same as it was nearly four centuries ago. Puerto Rico, an island in the Caribbean Sea, covers an area of 3,435 square miles and has a population of nearly 2,500,000. There are 957 licensed radio amateurs in Puerto Rico.

The only publications listing licensed radio amateurs throughout the world.....Since 1920

## in this issue

- 2,814 new licenses issued by FCC since the Winter 1967-68 issue.
- Over 33,000 changes in listings.
- 292,914 licensed radio amateurs in the U.S.A.
- Radio Amateur prefixes of the world, with map, A.R.R.L. countries list.
- Great circle bearings, postal information, standard time charts, codes, "Q" signals . . . and many other features.
- QSL MANAGERS AROUND THE WORLD.
- STOP PRESS—late QTH's.
- Class of license on each call.

**\$6.95** in U.S.A. and Canada •

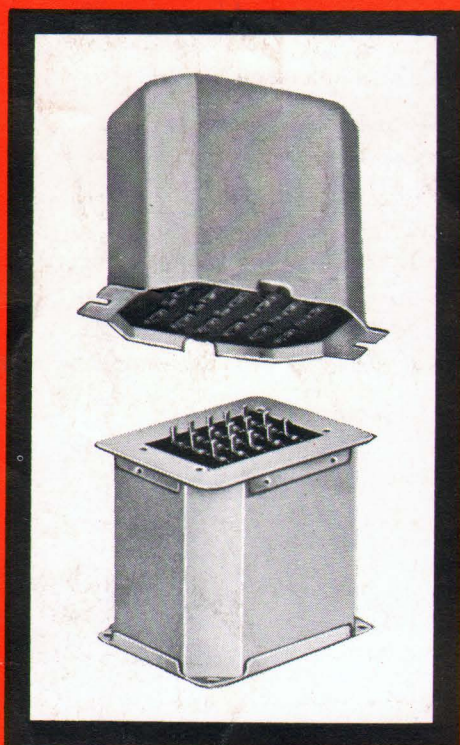
Elsewhere, throughout the world, **\$7.20**





# "S" SERIES

## AUDIO & POWER TRANSFORMERS & REACTORS For Complete Ham Systems



**Popular Priced  
Matched Components  
for  
Power Supplies  
Modulation  
Pre-Amp &  
Power Amplifiers  
... for entire ham rigs**

Thirty years of attention to ham requirements have resulted in a complete line of reliable, high quality components geared especially to your needs. The "S" series of audio and power transformers and reactors, designed specifically for ham and PA service, are completely matched for compatibility in constructing a rig. These are popular priced units which afford the ham the full benefits of UTC's established excellence for quality components coupled with high reliability.

Write for catalog of over  
1,300 STOCK ITEMS  
with UTC top Quality



**UNITED TRANSFORMER CO. TRW**

DIVISION OF TRW INC. • 150 VARICK STREET, NEW YORK, N. Y. 10013

In CANADA: A. C. SIMMONDS & SONS LTD., Agincourt, Ontario



# NEW

## DX

## Beam

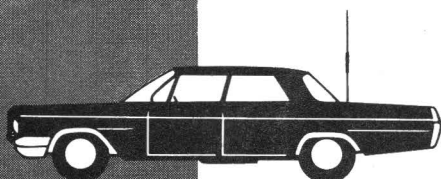
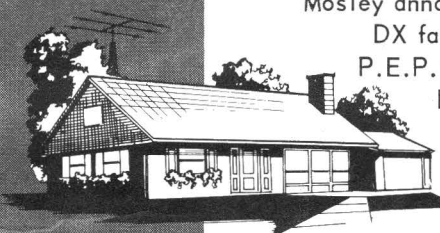
## and

## Mobile Antenna

## by

## MOSLEY

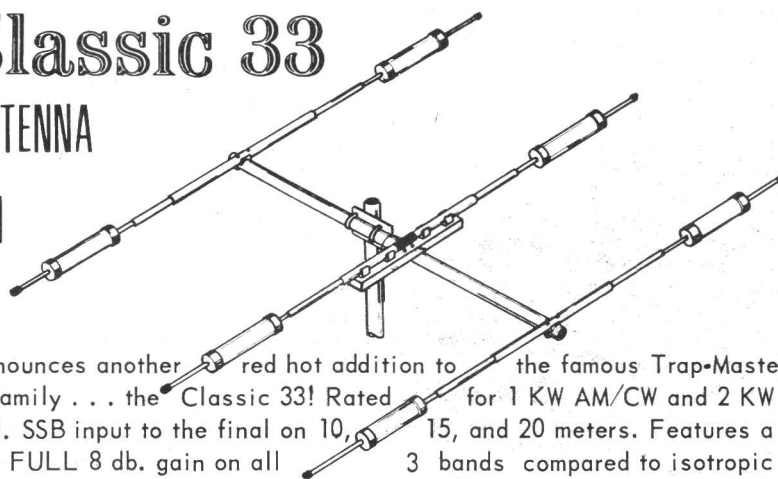
FREE: Your "Ham Shack  
Copy" of the NEW  
ANTENNA CATALOG  
Write Dept. 110B



### The Classic 33

AMATEUR ANTENNA

for 10, 15, and  
20 meters



Mosley announces another red hot addition to the famous Trap-Master DX family . . . the Classic 33! Rated for 1 KW AM/CW and 2 KW P.E.P. SSB input to the final on 10, 15, and 20 meters. Features a FULL 8 db. gain on all 3 bands compared to isotropic source. or 10.1 over reference dipole

The introduction of the Classic 33 means . . . now Mosley offers you a new type of balanced feed system in a beam, "Broad Band Capacitive Matching"\* . An efficient, very effective way of beam matching.

Other features you'll appreciate . . . wider spacing, longer boom of greater diameter, and an extra rugged clamping method. Put them all together and you've got a real DX'in beam! For more information on the New Classic matching system and why Mosley developed the Classic 33 . . . . . Write code 107.

\* (Pat. Pend.)



Now in the Mosley tradition of antenna excellence . . . consider the New mobile Lancer 1000 for unsurpassed mobile DX'ing! Rated for 1 KW AM and 2 KW P.E.P. SSB input to the final on 5 bands (10-75 meters).

This reasonably priced New mobile antenna offers you such outstanding features as : (1) Interchangeable coils, performance tested to take constant KW use (10 meters does not require a coil). (2) Corona Ring at antenna tip for reduction of corona effect. (3) Adjustment in whip section for antenna peaking to desired frequency. (4) Capacity coupled top whip section for maximum efficiency.

Go Mosley all the way. Go mobile! Put a mobile Lancer 1000 on your car and a Classic 33 at the home QTH. Then you're ready for uninterrupted DX'ing wherever you are. For more information write:

**Mosley Electronics, Inc.** AD CODE NO. 110B  
4610 N. LINDBERGH BLVD., BRIDGETON, MO. 63042

## RADIO AMATEURS OF THE U.S.A.

VOLUME 46  
NUMBER 1

ALL K AND W CALLS

SPRING 1968

### CONTENTS

A. R. R. L. COUNTRIES LIST .....	8
A. R. R. L. PHONETIC ALPHABET .....	20
CENSUS OF AMATEUR RADIO LICENSES in the U.S.A. by classes .....	7
CENSUS OF AMATEUR RADIO LICENSES throughout the world .....	10
DX OPERATING CODE .....	11
F. C. C. EXAMINATION POINTS .....	20
GREAT CIRCLE BEARINGS in the United States .....	12
GREAT CIRCLE BEARINGS CENTERED ON CENTER OF UNITED STATES .....	18
GREAT CIRCLE CHART OF THE WORLD CENTERED ON THE UNITED STATES .....	19
INTERNATIONAL POSTAL RATES .....	13
"Q" SIGNALS .....	24
QSL MANAGERS .....	623
RADIO AMATEUR PREFIXES arranged alphabetically by prefix .....	6
RADIO AMATEUR PREFIXES arranged alphabetically by country .....	4
RADIO PARTS & EQUIPMENT DEALERS . . . AT YOUR SERVICE .....	629
STANDARD TIME throughout the world .....	17
STOP PRESS late mail QTH's .....	622
TELEGRAPHER'S ABBREVIATIONS IN CURRENT USE .....	31
TELEGRAPH CODES .....	5
WHERE TO BUY .....	632
WORLD MAP SHOWING RADIO AMATEUR PREFIXES .....	23
WORLD TIME CONVERSION CHART .....	14
"Z" SIGNALS .....	21

### DIRECTORY

FIRST CALL AREA .....	1
Includes the States of Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont.	
SECOND CALL AREA .....	45
Includes the States of New Jersey and New York.	
THIRD CALL AREA .....	125
Includes the States of Delaware, Maryland, Pennsylvania, and the District of Columbia.	
FOURTH CALL AREA .....	173
Includes the States of Alabama, Florida, Georgia, Kentucky, North and South Carolina, Tennessee and Virginia.	
FIFTH CALL AREA .....	257
Includes the States of Arkansas, Louisiana, Mississippi, New Mexico, Oklahoma and Texas.	
SIXTH CALL AREA .....	313
Includes the State of California.	
SEVENTH CALL AREA .....	394
Includes the States of Arizona, Idaho, Montana, Nevada, Oregon, Utah, Washington and Wyoming.	
EIGHTH CALL AREA .....	436
Includes the States of Michigan, Ohio and West Virginia.	
NINTH CALL AREA .....	498
Includes the States of Illinois, Indiana and Wisconsin.	
TENTH CALL AREA .....	556
Includes the States of Colorado, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota and South Dakota.	
OTHER CALLS INCLUDING HAWAII AND ALASKA .....	609

RADIO AMATEUR CALLBOOK MAGAZINE is published quarterly on the first of March, June, September and December. Single copy, \$6.95 plus 25c for mailing in U.S.A., possessions and Canada, elsewhere add 50c for mailing. Subscription, any 4 issues, \$24.00 postpaid in U.S.A., possessions and Canada, \$25.00 postpaid elsewhere, throughout the world. Second class postage paid at Chicago, Illinois.

HERBERT J. NELSON, Publisher and Advertising Manager.  
Advertising Representatives:

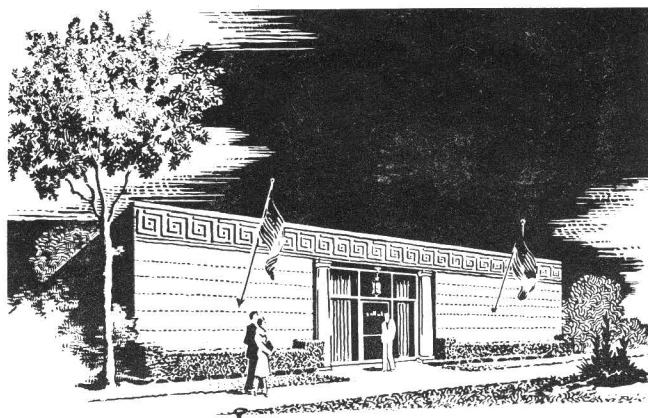
JAMES C. MUNN,  
2621 N. Moreland, Cleveland, Ohio 44120. Phone 561-3754.

VIRGINIA M. TWOREK, Editor.

CHARLES O. STIMPSON, WA4HIJ, Founder.

Published by RADIO AMATEUR CALLBOOK, INC. 4844 Fullerton Ave., Chicago, Illinois 60639, U.S.A. Phone 622-6616 (Area Code 312).  
Copyright © 1968, RADIO AMATEUR CALLBOOK, INC.  
ADDRESS ALL CORRESPONDENCE TO THE COMPANY.

The entire contents of this publication is copyrighted by the Radio Amateur Callbook, Inc., Chicago, Illinois 60639.  
Permission to use the names and addresses of the licensed radio amateurs listed in this book is restricted to our advertisers and authorized distributors unless permission is granted in writing.  
Licensed radio amateurs are listed in the Callbook without charge except Special Listings. Every effort is made to keep this publication as complete and accurate as possible. Please notify us promptly of any change in your address. We cannot accept any liability for omissions, misspelled names or incorrect addresses. Any errors should be immediately called to our attention.  
Library of Congress Catalog Card Number: 65-30177

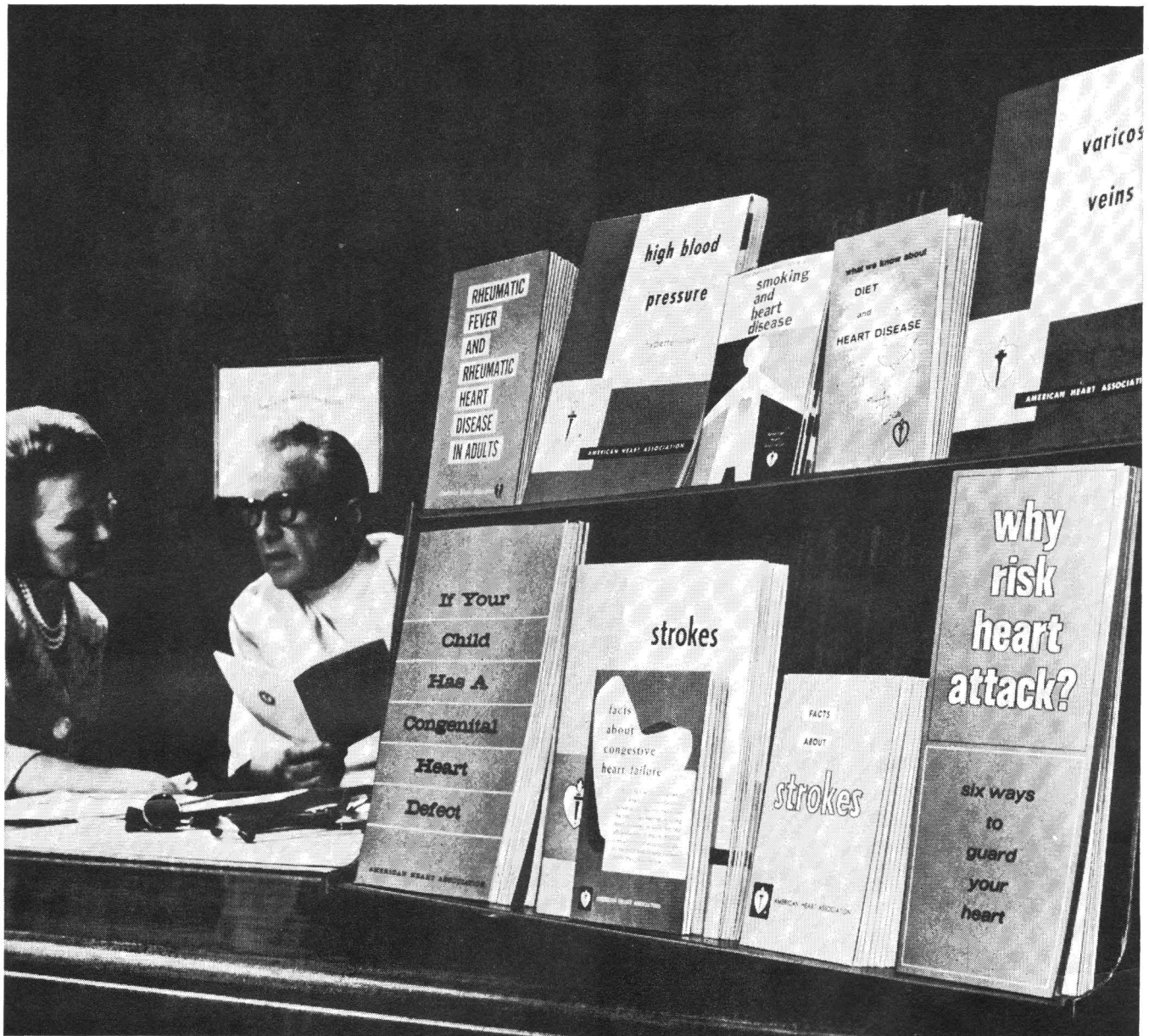


The Home of RADIO AMATEUR CALLBOOK . . . . a modern air-conditioned building planned for maximum efficiency in the production of Callbooks and Callbook products.

A year around staff, through the use of electronic data processing equipment, evaluates and compiles the directory information received daily from all over the world. Extensive library and historical records are maintained to provide the most complete and accurate Callbook possible to produce.

The Callbook had its beginning back in 1920 when there were just a few radio amateurs. Today, Callbooks and Callbook products are in use in every country of the world.





## WHAT SHOULD YOU KNOW ABOUT THE HEART AND BLOOD VESSEL DISEASES?

You should know that they are America's leading health enemy. They can strike any member of your family—young or old.

You should know what you can do to prevent rheumatic fever and the heart disease which can result from it.

You should know the simple rules that can help reduce the risk of heart attack to you and your family.

You should know what to do about high

blood pressure, one of the causes of heart attack and stroke.

How can you get the facts?

Ask your local Heart Association for informative booklets, written in simple lay language and approved by leading medical authorities.

Your Heart Fund dollars make possible these educational aids as well as vital research and community service programs.

**GIVE ...SO MORE  
WILL LIVE**



**HEART FUND**

*Contributed by the Publisher*



# PREFIXES—BY COUNTRIES

The following countries listed in alphabetical order by country show international radio amateur prefixes. Characters in ( ) designate the continent and zone in which the country is located. Abbreviations are as follows: A—Asia, AF—Africa, E—Europe, NA—North America, O—Oceania, SA—South America.

Aden (South Arabia).....(A-21).....VS9  
Afghanistan.....(A-21).....YA  
Aland Is. ....(E-15).....OH0  
Alaska.....(NA-1).....KL7  
Albania.....(E-15).....ZA  
Algeria.....(AF-33).....7X  
Amsterdam & St. Paul Is. ....(AF-39).....FB8  
Andaman & Nicobar Is. ....(A-26).....VU5  
Andorra.....(E-14).....PX1  
Angola.....(AF-36).....CR6  
Antarctica.....CE9AA-AM,FB8Y,KC4AA,  
KC4US,LA,LU-Z,OR5,VK0,  
VP8,UAI,ZL5,3Y,8J  
Argentina.....(SA-13).....LU  
Ascension Is. ....(AF-36).....Z8  
Austral & French Antarctic (A-39).....FB8  
Australia.....(O-29 & 30).....VK  
Austria.....(E-15).....OE  
Azores Is. ....(E-14).....CT2

Bahama Is. ....(NA-8).....VP7  
Bahrain Is. ....(A-21).....MP4B  
Baker Is. ....(O-31).....KB6  
Balearic Is. ....(E-14).....EA6  
Barbados Is. ....(NA-8).....8P6  
Belgium.....(E-14).....ON  
Bermuda Is. ....(NA-5).....VP9  
Bhutan.....(A-22).....AC5  
Bolivia.....(SA-10).....CP  
Borneo.....(O-28).....8F5  
Botswana.....(AF-38).....ZS9  
Brazil.....(SA-11).....PY  
British Honduras.....(NA-7).....VP1  
British Phoenix Is. ....(O-31).....VR1  
Brunei.....(O-28).....VS5  
Bulgaria.....(E-20).....LZ  
Burma.....(A-26).....XZ  
Burundi.....(AF-36).....9U5

Cambodia.....(A-26).....XU  
Cameroon.....(AF-36).....TJ  
Canada.....(NA-1 to 5).....VE  
Canal Zone.....(NA-7).....KZ5  
Canary Is. ....(AF-35).....EA8  
Canton Is. ....(O-31).....KB6  
Cape Verde Is. ....(AF-35).....CR4  
Caroline Is. ....(O-27).....KC6  
Cayman Is. ....(NA-8).....ZF1  
Celebes & Molucca Is. ....(O-28).....8F6  
Central African Republic.....(AF-36).....TL8  
Ceuta y Melilla, Spanish.....(A-33).....EA9  
Ceylon.....(A-22).....457  
Chad.....(AF-36).....TT8  
Chagos Is. ....(AF-39).....VQ8  
Channel Is. ....(E-14).....GC  
Chatham Is. ....(O-32).....ZL  
Chile.....(SA-12).....CE  
China.....(A-23 & 24).....BY  
Christmas Is. ....(O-29).....VK9  
Clipperton Is. ....(NA-7).....F08  
Cocos Is. ....(NA-7).....TI9  
Cocos-Keeling Is. ....(O-29).....VK9  
Colombia.....(SA-9).....HK  
Comoro Is. ....(AF-39).....FH8  
Congo, Republic of.....(AF-36).....TN8  
Congo, Republic of the.....(AF-36).....9Q5  
Cook Is. ....(O-32).....ZK1  
Corsica.....(E-15).....FC  
Costa Rica.....(NA-7).....TI  
Crete.....(E-20).....SV  
Crozet Is. ....(AF-39).....FB8  
Cuba.....(NA-8).....CM,C0  
Cyprus.....(A-20).....ZC4  
Czechoslovakia.....(E-15).....OK,OL

Dahomey.....(AF-35).....TY  
Das Is. ....(A-21).....MP4D  
Denmark.....(E-14).....OZ  
Dodecanese Is. ....(E-20).....SV5  
Dominican Republic.....(NA-8).....HI

Easter Is. ....(SA-12).....CE0A  
Ecuador.....(SA-10).....HC  
Egypt.....(AF-34).....SU  
El Salvador.....(NA-7).....YS  
Enderbury Is. ....(O-31).....KB6  
England.....(E-14).....G  
Ethiopia.....(AF-37).....ET3

Faeroes Is. ....(E-14).....OY  
Falkland Is. ....(SA-13).....VP8  
Fanning Is. ....(O-31).....VR3  
Fernando de Noronha.....(SA-11).....PY7  
Fiji Is. ....(O-32).....VR2  
Finland.....(E-15).....OH  
France.....(E-14).....F  
French Polynesia.....(O-32).....F08

Gabon.....(AF-36).....TR8  
Galapagos Is. ....(SA-10).....HC8  
Gambia.....(AF-35).....ZD3  
German Federal Rep, West.....(E-14)DC,DJ,DK,DL  
German Dem. Rep, East.....(E-14).....DM  
Ghana.....(AF-35).....9G1  
Gibraltar.....(E-14).....ZB2  
Gilbert Is. ....(O-31).....VR1  
Goa.....(A-22).....CR8  
Graham Land.....(SA-13).....VP8  
Greece.....(E-20).....SV  
Greenland.....(NA-40).....OX  
Guadeloupe Is. ....(NA-8).....FG7  
Guantanamo Bay.....(NA-8).....KG4  
Guatemala.....(NA-7).....TG  
Guiana, French.....(SA-9).....FY7

Guinea, Portuguese.....(AF-35).....CR3  
Guinea, Republic of.....(AF-35).....7G1  
Guyana.....(SA-9).....8R

Haiti.....(NA-8).....HH  
Hawaii.....(O-31).....KH6  
Heard Is. ....(O-39).....VK0  
Honduras.....(NA-7).....HR  
Hong Kong.....(A-24).....VS6  
Howland Is. ....(O-31).....KB6  
Hungary.....(E-15).....HA, HG

Iceland.....(E-40).....TF  
Ifni.....(AF-33).....EA9  
India.....(A-22).....VU  
Indonesia.....(O-28).....8F  
Iran.....(A-21).....EP  
Iraq.....(A-21).....YI  
Ireland.....(E-14).....EI  
Isle of Man.....(E-14).....GD  
Israel.....(A-20).....4X4,4Z4  
Italy.....(E-15).....I  
Ivory Coast.....(AF-35).....TU2

Jamaica.....(NA-8).....6Y5  
Jan Mayen Is. ....(E-40).....JX  
Japan.....(A-25).....JA,JH  
Jarvis Is. ....(O-31).....KP6  
Java.....(O-28).....8F1,2,3  
Johnston Is. ....(O-31).....KJ6  
Jordan.....(A-20).....JY  
Juan Fernandez Is. ....(SA-12).....CE0Z

Kamran Is. ....(A-21).....VS9K  
Kenya.....(AF-37).....5Z4  
Kerguelen Is. ....(AF-39).....FB8  
Kermadec Is. ....(O-32).....ZL1  
Korea.....(A-25).....HM,HL9  
Kuwait.....(A-21).....9K2

Labrador.....(NA-2).....V02  
Laccadive Is. ....(A-22).....VU4  
Laos.....(A-26).....XW8  
Lebanon.....(A-20).....OD5  
Leeward Is. (West Indies).....(NA-8).....VP2  
Lesotho.....(AF-38).....7P8  
Liberia.....(AF-35).....EL,5L  
Libya.....(AF-34).....5A  
Liechtenstein.....(E-14).....HB0  
Line Is. ....(O-31).....VR3  
Little America.....(SA-13).....KC4  
Lord Howe Is. ....(O-30).....VK2  
Luxembourg.....(E-14).....LX

Macao.....(A-24).....CR9  
Macquarie Is. ....(O-30).....VK0  
Madeira Is. ....(AF-33).....CT3  
Madagascar.....(AF-39).....5R8  
Malawi.....(AF-37).....7Q7  
Malaysia, Federation of.....(A-28).....9M2  
Maldives Is. ....(A-22).....8QA  
Mali Republic.....(AF-35).....TZ  
Malta.....(E-15).....9H1  
Manchuria.....(A-24).....BY9  
Manihiki Is. ....(O-32).....HD1  
Marcus Is. ....(A-27).....KG6I  
Mariana Is. ....(O-27).....KG6  
Marshall Is. ....(O-31).....KX6  
Martinique.....(NA-8).....FM7  
Mauritania.....(AF-35).....5T5  
Mauritius Is. ....(AF-39).....VQ8  
Mexico.....(NA-6).....XE,XF  
Midway Is. ....(O-31).....KM6  
Monaco.....(E-14).....3A  
Mongolia.....(A-23).....JT1  
Morocco.....(AF-33).....CN  
Mozambique.....(AF-37).....CR7  
Muscat & Oman.....(A-21).....MP4M

Nauru Is. ....(O-31).....VK9  
Navassa Is. ....(NA-8).....KC4  
Nepal.....(A-22).....9N1  
Netherlands.....(E-14).....PA,PE,PI  
Netherlands Antilles.....(SA-9).....PJ  
New Caledonia.....(O-32).....FK8  
Newfoundland.....(NA-5).....V01  
New Guinea, N.E.....(O-28).....VK9  
New Hebrides.....(O-32).....F08,YJ  
New Zealand.....(O-32).....ZL  
Nicaragua.....(NA-7).....ZN  
Niger.....(AF-35).....5U7  
Nigeria.....(AF-35).....5N2  
Niue Is. ....(O-32).....ZK2  
Norfolk Is. ....(O-32).....VK9  
Northern Ireland.....(E-14).....GI  
Norway.....(E-14).....LA

Pakistan.....(A-21,22).....AP  
Palmyra Is. ....(O-31).....KP6  
Panama.....(NA-7).....HP  
Papua Territory.....(O-28).....VK9  
Paraguay.....(SA-11).....ZP  
Peru.....(SA-10).....OA  
Philippines.....(O-27).....DU  
Phoenix Is. ....(O-31).....KB6  
Pitcairn Is. ....(O-32).....VR6  
Poland.....(E-15).....SP  
Portugal.....(E-14).....CT1  
Prince Edward & Marion Is. ....(AF-38).....ZS2  
Puerto Rico.....(NA-8).....KP4

Qatar.....(A-21).....MP4Q

Reunion Is. ....(AF-39).....FR7  
Revillagigedo Is. ....(NA-6).....XE4  
Rhodesia.....(AF-38).....ZE  
Rio Muni.....(AF-36).....EA0  
Rodriguez Is. ....(AF-39).....VQ8  
Romania.....(E-20).....Y0  
Rwanda.....(AF-36).....9X5  
Ryukyu Is. ....(A-25).....KR6,KR8

Saba Is. ....(NA-8).....PJ(S)  
Sabah.....(O-28).....9M6  
Saint Helena Is. ....(AF-36).....ZD7  
Saint Maarten Is. ....(NA-8).....PJ2M  
Saint Martin Is. ....(NA-8).....F57  
Saint Pierre & Miquelon Is. ....(NA-5).....FP8  
Samoa (U.S.).....(O-32).....5W6  
Samoa, Western.....(O-32).....SW1  
San Andres & Providencia.....(NA-7).....HK0  
San Marino.....(E-15).....M1,9A1  
Sao Tome & Principe Is. ....(A-36).....CR5  
Sarawak.....(O-28).....9M8  
Sardinia.....(E-15).....IS  
Saudi Arabia.....(A-21).....HZ,7Z  
Scotland.....(E-14).....GM  
Senegal.....(AF-35).....6W8  
Serrana Bk & Roncador Cay.....(NA-7).....KS4B  
Seychelles Is. ....(AF-39).....VQ9  
Sicily.....(E-15).....IT  
Sierra Leone.....(AF-35).....9L1  
Sikkim.....(A-22).....AC3  
Singapore.....(A-28).....9V1  
Socotra Is. ....(AF-37).....VS9  
Solomon Is. ....(O-28).....VR4  
Somali Republic.....(AF-37).....60  
Somaliland, French.....(AF-37).....FL8  
South Africa.....(AF-38).....ZS  
South Georgia Is. ....(SA-13).....VP8  
South Orkney Is. ....(SA-13).....VP8  
South Sandwich Is. ....(SA-13).....VP8  
South Shetland Is. ....(SA-13).....CE9,VP8  
South-West Africa.....(AF-38).....ZS3  
Soviet Union:

European Russian Soviet Federated  
Socialist Republic.....(E-16).....UA1,3,4,6  
Asiatic Russian S.F.S.R.(A-18,19).....UA9,0  
Ukrainian S.S.R.....(E-16).....UB5  
White Russian S.S.R.....(E-16).....UC2  
Azerbaijani S.S.R.....(A-21).....UD6  
Georgian S.S.R.....(A-21).....UF6  
Armenian S.S.R.....(A-21).....UG6  
Turkmen S.S.R.....(A-17).....UH8  
Uzbek S.S.R.....(A-17).....UI8  
Tadzhik S.S.R.....(A-17).....UJ8  
Kazakh S.S.R.....(A-17).....UL7  
Kirghiz S.S.R.....(A-17).....UM8  
Karelo-Finnish S.S.R.....(E-16).....UN1  
Moldavian S.S.R.....(E-16).....U05  
Lithuanian S.S.R.....(E-15).....UP  
Latvian S.S.R.....(E-15).....UQ  
Estonian S.S.R.....(E-15).....UR  
Spain.....(E-14).....EA  
Spanish Sahara (Rio de Oro).....(A-33).....EA9  
Sudan.....(AF-34).....ST  
Sumatra.....(O-28).....8F4  
Surinam.....(SA-9).....PZ  
Svalbard Is. ....(E-40).....JW  
Swan Is. ....(NA-7).....KS4  
Swaziland.....(AF-38).....ZD5  
Sweden.....(E-14).....SL,SM  
Switzerland.....(E-14).....HB  
Syria.....(A-20).....YK

Taiwan.....(A-24).....BV  
Tanzania.....(AF-37).....5H3  
Tasmania.....(O-30).....VK7  
Thailand.....(A-26).....HS  
Tibet.....(A-23).....AC4  
Timor Is. (Portuguese).....(O-28).....CR8  
Tinin Is. ....(O-27).....KG6T  
Togo.....(AF-35).....5V  
Tokelau Is. ....(O-31).....ZM7  
Tonga (Friendly) Is. ....(O-32).....VR5  
Trinidad & Martin Vaz Is. ....(SA-11).....PY0  
Trinidad & Tobago Is. ....(SA-9).....9Y4  
Tristan de Cunha & Gough.....(AF-38).....ZD9  
Tromelin Is. ....(AF-39).....FB8  
Trucial States.....(A-21).....MP4T  
Tunisia.....(AF-33).....3V8  
Turkey.....(A-20).....TA,TC  
Turks & Caicos Is. ....(NA-8).....VP5

Uganda.....(AF-37).....5X5  
United Nations, Geneva.....(E-14).....4U  
United States of America.....(NA-3,4,5).....W,K  
Upper Volta.....(AF-35).....XT2  
Uruguay.....(SA-13).....CX

Vatican City.....(E-15).....HV  
Venezuela.....(SA-9).....YV  
Vietnam.....(A-26).....3W8  
Virgin Is. ....(NA-8).....KV4  
Volcano & Bonin Is. ....(A-27).....KG6I

Wake Is. ....(O-31).....KW6  
Wales.....(E-14).....GW  
Wallis & Futuna Is. ....(O-32).....FW8  
West Irian.....(O-28).....JZ0  
Windward Is. (West Indies).....(NA-8).....VP2

Yemen.....(A-21).....4W1  
Yugoslavia.....(E-15).....YU

Zambia.....(AF-36).....9I,9J  
Zanzibar.....(AF-37).....VQ1



TELEGRAPH CODES

CONTINENTAL CODE	MORSE CODE
Used in radio, on submarine cables and abroad	Used on land lines in United States and Canada
<div><div>A B C D E F G H I J K L M N O P Q R S T U V W X Y Z</div><div>There are no space letters in the Continental Code</div></div>	<div><div>A B C D E F G H I J K L M N O P Q R S T U V W X Y Z &amp;</div><div>C, O, R, Y, Z and &amp; are composed of dots and spaces T is a short dash L is a longer dash Zero (0) is usually abbreviated to T</div></div>
<div><div>Figures</div><div>1 2 3 4 5 6 7 8 9 0</div></div>	<div><div>Figures</div><div>1 2 3 4 5 6 7 8 9 0</div></div>
<div><div>Punctuation</div><div>(.) (,) (?) (;) (:) (!) (/) (")</div></div>	<div><div>Punctuation</div><div>(.) (,) (?) (;) (:) (!) (/) (")</div></div>


EMERGENCY SIGNAL

**QRRR** (The land SOS) To be used only by a station in the affected area when calling with an emergency message.

Build **RELIABILITY** into your equipment with **SPRAGUE**


### 'LYTIC CAPACITORS

**Twist-Lok® Electrolytics**




Hermetically sealed in aluminum cases. Withstand high temperatures (85° C), high surge voltages, high ripple currents.

**Atom® Electrolytics**




Tiny, dependable single or multiple section units. Low leakage, long shelf life. Metal cases.

**Littl-Lytic® Electrolytics**



Ultra-small, excellent for transistorized circuitry. All-welded construction—no pressure joints to cause "opens". Long shelf life.


**Transi-lytic® Capacitors**



Miniature low-cost capacitors for transistorized and other low voltage circuitry. Special low-leakage current construction. Plastic case provides excellent resistance to high humidity.


### DIFILM® CAPACITORS

**Black Beauty® Molded Tubulars**



Dual dielectric (polyester film and paper) combines best features of both. Solid impregnant, nothing to leak or drip. Molded phenolic case. Withstand high temperatures, high humidity.


**Orange Drop® Dipped Tubulars**



Dual dielectric (polyester film and paper), with solid impregnant. Double-dipped in epoxy resin. Radial leads, ideal for printed wiring boards.


### CERAMIC CAPACITORS

**Cera-Mite® Disc Types**




Extremely wide range of capacitance values and voltage ratings. Available in general-application, high-K, temperature-stable, and temperature-compensating types.

**Buttonhead Types**



Flat disc capacitor element sealed in top of hex head. Screw stud for easy mounting. Low self-inductance, high self-resonant frequency. Ideal for by-pass or feed-thru applications.


### HYPASS® CAPACITORS



Exclusive 3-terminal feed-thru units which effectively by-pass vhf currents. Suppress TVI from transmitters, diathermy, line-conducted radiation, etc.

### OIL CAPACITORS

**Rectangular Oils**



For transmitter power supplies and other high voltage applications. Hermetically sealed in rugged metal cases. Oil-impregnated, oil-filled. High insulation resistance.

**Screwbase Oils**

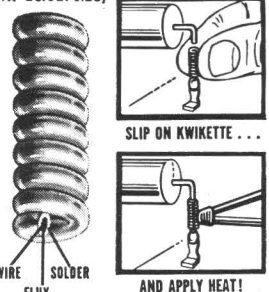


Cylindrical screwbase can for easy single hole mounting. Oil-impregnated, oil filled. Small size, will fit tight spaces.

### KWIKETTE® SOLDERING AIDS

Not just another wire spring connector! Copperweld wire inner core, intermediate layer of flux, outer jacket of solder ... all you need is heat!

(4x actual size)



SLIP ON KWIKETTE ... AND APPLY HEAT!

For complete data on these and other Sprague components, get Catalog C-617 from your Sprague Distributor, or write Sprague Products Co., 95 Marshall Street, North Adams, Mass. 01247





# INTERNATIONAL RADIO AMATEUR PREFIXES

The following prefixes are listed in alphabetical order for convenience in locating the country when DX calls are heard.

AC3..... Sikkim  
AC4..... Tibet  
AC5..... Bhutan  
AP..... Pakistan

BV..... Taiwan  
BY..... China  
BY9..... Manchuria

CE..... Chile  
CE9..... South Shetland Is.  
CE0A..... Easter Is.  
CE0Z..... Juan Fernandez Is.

CM,CO..... Cuba  
CN..... Morocco  
CP..... Bolivia

CR3..... Portuguese Guinea  
CR4..... Cape Verde Is.  
CR5..... Sao Tome & Principe Is.  
CR6..... Angola  
CR7..... Mozambique  
CR8..... Goa  
CR8..... Timor Is. (Portuguese)  
CR9..... Macao  
CT1..... Portugal  
CT2..... Azores Is.  
CT3..... Madeira Is.

CX..... Uruguay  
DC,DJ,DK,DL..... West German Federal Rep.  
DM..... East German Democratic Rep.  
DU..... Philippines

EA..... Spain  
EA6..... Balearic Is.  
EA8..... Canary Is.  
EA9..... Spanish Sahara, Ifni, Ceuta y Melilla  
EA0..... Rio Muni  
EI..... Ireland  
EL,5L..... Liberia  
EP..... Iran  
ET3..... Ethiopia

F..... France  
FB8..... Austral and Antarctic French Lands,  
Amsterdam, St. Paul, Crozet, Kerguelen,  
Tromelin Is.  
FC..... Corsica  
FG7..... Guadeloupe Is.  
FH8..... Comoro Is.  
FK8..... New Caledonia  
FL8..... French Somaliland  
FM7..... Martinique  
F08..... French Polynesia, Clipperton Is.  
FP8..... St. Pierre & Miquelon Is.  
FR7..... Reunion Is.  
FS7..... Saint Martin  
F08..... New Hebrides  
FW8..... Wallis & Futuna Is.  
FY7..... French Guiana

FA..... Spain  
FA6..... Balearic Is.  
FA8..... Canary Is.  
FA9..... Spanish Sahara, Ifni, Ceuta y Melilla  
FA0..... Rio Muni  
EI..... Ireland  
EL,5L..... Liberia  
EP..... Iran  
ET3..... Ethiopia

EA..... Spain  
EA6..... Balearic Is.  
EA8..... Canary Is.  
EA9..... Spanish Sahara, Ifni, Ceuta y Melilla  
EA0..... Rio Muni  
EI..... Ireland  
EL,5L..... Liberia  
EP..... Iran  
ET3..... Ethiopia

EA..... Spain  
EA6..... Balearic Is.  
EA8..... Canary Is.  
EA9..... Spanish Sahara, Ifni, Ceuta y Melilla  
EA0..... Rio Muni  
EI..... Ireland  
EL,5L..... Liberia  
EP..... Iran  
ET3..... Ethiopia

EA..... Spain  
EA6..... Balearic Is.  
EA8..... Canary Is.  
EA9..... Spanish Sahara, Ifni, Ceuta y Melilla  
EA0..... Rio Muni  
EI..... Ireland  
EL,5L..... Liberia  
EP..... Iran  
ET3..... Ethiopia

EA..... Spain  
EA6..... Balearic Is.  
EA8..... Canary Is.  
EA9..... Spanish Sahara, Ifni, Ceuta y Melilla  
EA0..... Rio Muni  
EI..... Ireland  
EL,5L..... Liberia  
EP..... Iran  
ET3..... Ethiopia

EA..... Spain  
EA6..... Balearic Is.  
EA8..... Canary Is.  
EA9..... Spanish Sahara, Ifni, Ceuta y Melilla  
EA0..... Rio Muni  
EI..... Ireland  
EL,5L..... Liberia  
EP..... Iran  
ET3..... Ethiopia

EA..... Spain  
EA6..... Balearic Is.  
EA8..... Canary Is.  
EA9..... Spanish Sahara, Ifni, Ceuta y Melilla  
EA0..... Rio Muni  
EI..... Ireland  
EL,5L..... Liberia  
EP..... Iran  
ET3..... Ethiopia

EA..... Spain  
EA6..... Balearic Is.  
EA8..... Canary Is.  
EA9..... Spanish Sahara, Ifni, Ceuta y Melilla  
EA0..... Rio Muni  
EI..... Ireland  
EL,5L..... Liberia  
EP..... Iran  
ET3..... Ethiopia

EA..... Spain  
EA6..... Balearic Is.  
EA8..... Canary Is.  
EA9..... Spanish Sahara, Ifni, Ceuta y Melilla  
EA0..... Rio Muni  
EI..... Ireland  
EL,5L..... Liberia  
EP..... Iran  
ET3..... Ethiopia

EA..... Spain  
EA6..... Balearic Is.  
EA8..... Canary Is.  
EA9..... Spanish Sahara, Ifni, Ceuta y Melilla  
EA0..... Rio Muni  
EI..... Ireland  
EL,5L..... Liberia  
EP..... Iran  
ET3..... Ethiopia

EA..... Spain  
EA6..... Balearic Is.  
EA8..... Canary Is.  
EA9..... Spanish Sahara, Ifni, Ceuta y Melilla  
EA0..... Rio Muni  
EI..... Ireland  
EL,5L..... Liberia  
EP..... Iran  
ET3..... Ethiopia

EA..... Spain  
EA6..... Balearic Is.  
EA8..... Canary Is.  
EA9..... Spanish Sahara, Ifni, Ceuta y Melilla  
EA0..... Rio Muni  
EI..... Ireland  
EL,5L..... Liberia  
EP..... Iran  
ET3..... Ethiopia

EA..... Spain  
EA6..... Balearic Is.  
EA8..... Canary Is.  
EA9..... Spanish Sahara, Ifni, Ceuta y Melilla  
EA0..... Rio Muni  
EI..... Ireland  
EL,5L..... Liberia  
EP..... Iran  
ET3..... Ethiopia

EA..... Spain  
EA6..... Balearic Is.  
EA8..... Canary Is.  
EA9..... Spanish Sahara, Ifni, Ceuta y Melilla  
EA0..... Rio Muni  
EI..... Ireland  
EL,5L..... Liberia  
EP..... Iran  
ET3..... Ethiopia

EA..... Spain  
EA6..... Balearic Is.  
EA8..... Canary Is.  
EA9..... Spanish Sahara, Ifni, Ceuta y Melilla  
EA0..... Rio Muni  
EI..... Ireland  
EL,5L..... Liberia  
EP..... Iran  
ET3..... Ethiopia

EA..... Spain  
EA6..... Balearic Is.  
EA8..... Canary Is.  
EA9..... Spanish Sahara, Ifni, Ceuta y Melilla  
EA0..... Rio Muni  
EI..... Ireland  
EL,5L..... Liberia  
EP..... Iran  
ET3..... Ethiopia

EA..... Spain  
EA6..... Balearic Is.  
EA8..... Canary Is.  
EA9..... Spanish Sahara, Ifni, Ceuta y Melilla  
EA0..... Rio Muni  
EI..... Ireland  
EL,5L..... Liberia  
EP..... Iran  
ET3..... Ethiopia

EA..... Spain  
EA6..... Balearic Is.  
EA8..... Canary Is.  
EA9..... Spanish Sahara, Ifni, Ceuta y Melilla  
EA0..... Rio Muni  
EI..... Ireland  
EL,5L..... Liberia  
EP..... Iran  
ET3..... Ethiopia

KG6S..... Saipan Is.  
KG6T..... Tinian Is.  
KH6..... Hawaii  
KJ6..... Johnston Is.  
KL7..... Alaska  
KM6..... Midway Is.  
KP4..... Puerto Rico  
KP6..... Jarvis & Palmyra Is.  
KR6,KR8..... Ryukyu Is. (Okinawa)  
KS4..... Swan Is.  
KS4B..... Serrana Bank & Roncador Cay  
KS6..... U. S. Samoa  
KV4..... Virgin Is.  
KW6..... Wake Is.  
KX6..... Marshall Is.  
KZ5..... Canal Zone

LA..... Norway  
LU..... Argentina  
LX..... Luxembourg  
LZ..... Bulgaria

M1..... San Marino  
MP4..... Bahrain and Das Is.,  
Muscat & Oman, Qatar, Trucial States

OA..... Peru  
OD5..... Lebanon  
OE..... Austria  
OH..... Finland  
OH0..... Aland Is.  
OK,OL..... Czechoslovakia  
ON..... Belgium  
OX..... Greenland  
OY..... Faeroes Is.  
OZ..... Denmark

PA,PE,PI..... Netherlands  
PJ..... Netherlands Antilles  
PJ(A)..... Aruba  
PJ(B)..... Bonaire  
PJ(C)..... Curacao  
PJ(E)..... St. Eustatius  
PJ(M)..... Saint Maarten  
PJ(S)..... Saba Is.

PX1..... Andorra  
PY..... Brazil  
PY7..... Fernando de Noronha Is.  
PY0..... Trindade & Martin Vaz Is.  
PZ..... Surinam

SL,SM..... Sweden  
SP..... Poland  
ST..... Sudan  
SU..... St. Pierre & Miquelon Is.  
SV..... Crete, Greece  
SV5..... Dodecanese Is.

TA,TC..... Turkey  
TF..... Iceland  
TG..... Guatemala  
TI..... Costa Rica  
TI9..... Cocos Is.  
TJ..... Cameroon  
TL8..... Central African Republic  
TN8..... Republic of Congo (Brazzaville)  
TR8..... Gabon  
TT8..... Chad  
TU2..... Ivory Coast  
TV..... Dahomey  
TZ..... Mali Republic

UA1,3,4,6..... European Russian  
Soviet Federated Socialist Republic  
UA9,0..... Asiatic Russian S. F. S. R.  
UB5..... Ukrainian S. S. R.  
UC2..... White Russian S. S. R.  
UD6..... Azerbaidzhan S. S. R.  
UF6..... Georgian S. S. R.  
UG6..... Armenian S. S. R.  
UH8..... Turkmen S. S. R.  
UI8..... Uzbek S. S. R.  
UJ8..... Tadzhik S. S. R.  
UL7..... Kazakh S. S. R.  
UM8..... Kirghiz S. S. R.  
UM1..... Karelo-Finnish S. S. R.  
U05..... Moldavian S. S. R.  
UP..... Lithuanian S. S. R.  
UQ..... Latvian S. S. R.  
UR..... Estonian S. S. R.

VE..... Canada  
VK..... Australia  
VK2..... Lord Howe Is.  
VK7..... Tasmania  
VK9..... New Guinea, Papua, Christmas,  
Cocos-Keeling, Nauru, Norfolk Is.  
VK0..... Heard & Macquarie Is., Antarctica

VO1..... Newfoundland  
VO2..... Labrador  
VP1..... British Honduras  
VP2..... Leeward & Windward Is.  
VP5..... Turks & Caicos Is.  
VP7..... Bahama Is.  
VP8..... Falkland, S. Georgia, S. Orkney,  
S. Sandwich, S. Shetland Is., Graham Land  
VP9..... Bermuda Is.

VO1..... Newfoundland  
VO2..... Labrador  
VP1..... British Honduras  
VP2..... Leeward & Windward Is.  
VP5..... Turks & Caicos Is.  
VP7..... Bahama Is.  
VP8..... Falkland, S. Georgia, S. Orkney,  
S. Sandwich, S. Shetland Is., Graham Land  
VP9..... Bermuda Is.

VO1..... Newfoundland  
VO2..... Labrador  
VP1..... British Honduras  
VP2..... Leeward & Windward Is.  
VP5..... Turks & Caicos Is.  
VP7..... Bahama Is.  
VP8..... Falkland, S. Georgia, S. Orkney,  
S. Sandwich, S. Shetland Is., Graham Land  
VP9..... Bermuda Is.

VO1..... Newfoundland  
VO2..... Labrador  
VP1..... British Honduras  
VP2..... Leeward & Windward Is.  
VP5..... Turks & Caicos Is.  
VP7..... Bahama Is.  
VP8..... Falkland, S. Georgia, S. Orkney,  
S. Sandwich, S. Shetland Is., Graham Land  
VP9..... Bermuda Is.

VO1..... Newfoundland  
VO2..... Labrador  
VP1..... British Honduras  
VP2..... Leeward & Windward Is.  
VP5..... Turks & Caicos Is.  
VP7..... Bahama Is.  
VP8..... Falkland, S. Georgia, S. Orkney,  
S. Sandwich, S. Shetland Is., Graham Land  
VP9..... Bermuda Is.

VO1..... Newfoundland  
VO2..... Labrador  
VP1..... British Honduras  
VP2..... Leeward & Windward Is.  
VP5..... Turks & Caicos Is.  
VP7..... Bahama Is.  
VP8..... Falkland, S. Georgia, S. Orkney,  
S. Sandwich, S. Shetland Is., Graham Land  
VP9..... Bermuda Is.

VO1..... Newfoundland  
VO2..... Labrador  
VP1..... British Honduras  
VP2..... Leeward & Windward Is.  
VP5..... Turks & Caicos Is.  
VP7..... Bahama Is.  
VP8..... Falkland, S. Georgia, S. Orkney,  
S. Sandwich, S. Shetland Is., Graham Land  
VP9..... Bermuda Is.

VO1..... Newfoundland  
VO2..... Labrador  
VP1..... British Honduras  
VP2..... Leeward & Windward Is.  
VP5..... Turks & Caicos Is.  
VP7..... Bahama Is.  
VP8..... Falkland, S. Georgia, S. Orkney,  
S. Sandwich, S. Shetland Is., Graham Land  
VP9..... Bermuda Is.

VO1..... Newfoundland  
VO2..... Labrador  
VP1..... British Honduras  
VP2..... Leeward & Windward Is.  
VP5..... Turks & Caicos Is.  
VP7..... Bahama Is.  
VP8..... Falkland, S. Georgia, S. Orkney,  
S. Sandwich, S. Shetland Is., Graham Land  
VP9..... Bermuda Is.

VO1..... Newfoundland  
VO2..... Labrador  
VP1..... British Honduras  
VP2..... Leeward & Windward Is.  
VP5..... Turks & Caicos Is.  
VP7..... Bahama Is.  
VP8..... Falkland, S. Georgia, S. Orkney,  
S. Sandwich, S. Shetland Is., Graham Land  
VP9..... Bermuda Is.

VO1..... Newfoundland  
VO2..... Labrador  
VP1..... British Honduras  
VP2..... Leeward & Windward Is.  
VP5..... Turks & Caicos Is.  
VP7..... Bahama Is.  
VP8..... Falkland, S. Georgia, S. Orkney,  
S. Sandwich, S. Shetland Is., Graham Land  
VP9..... Bermuda Is.

VO1..... Newfoundland  
VO2..... Labrador  
VP1..... British Honduras  
VP2..... Leeward & Windward Is.  
VP5..... Turks & Caicos Is.  
VP7..... Bahama Is.  
VP8..... Falkland, S. Georgia, S. Orkney,  
S. Sandwich, S. Shetland Is., Graham Land  
VP9..... Bermuda Is.

VO1..... Newfoundland  
VO2..... Labrador  
VP1..... British Honduras  
VP2..... Leeward & Windward Is.  
VP5..... Turks & Caicos Is.  
VP7..... Bahama Is.  
VP8..... Falkland, S. Georgia, S. Orkney,  
S. Sandwich, S. Shetland Is., Graham Land  
VP9..... Bermuda Is.

VO1..... Newfoundland  
VO2..... Labrador  
VP1..... British Honduras  
VP2..... Leeward & Windward Is.  
VP5..... Turks & Caicos Is.  
VP7..... Bahama Is.  
VP8..... Falkland, S. Georgia, S. Orkney,  
S. Sandwich, S. Shetland Is., Graham Land  
VP9..... Bermuda Is.

VO1..... Newfoundland  
VO2..... Labrador  
VP1..... British Honduras  
VP2..... Leeward & Windward Is.  
VP5..... Turks & Caicos Is.  
VP7..... Bahama Is.  
VP8..... Falkland, S. Georgia, S. Orkney,  
S. Sandwich, S. Shetland Is., Graham Land  
VP9..... Bermuda Is.

VO1..... Newfoundland  
VO2..... Labrador  
VP1..... British Honduras  
VP2..... Leeward & Windward Is.  
VP5..... Turks & Caicos Is.  
VP7..... Bahama Is.  
VP8..... Falkland, S. Georgia, S. Orkney,  
S. Sandwich, S. Shetland Is., Graham Land  
VP9..... Bermuda Is.

VQ1..... Zanzibar  
VQ8..... Chagos, Mauritius & Rodriguez Is.  
VQ9..... Seychelles Is.  
VR1..... Br. Phoenix, Ellice, Gilbert & Ocean Is.  
VR2..... Fiji Is.  
VR3..... Fanning, Line Is.  
VR4..... Solomon Is.  
VR5..... Tonga Is.  
VR6..... Pitcairn Is.  
VS5..... Brunei  
VS6..... Hong Kong  
VS9..... Aden, Kamaran, Socotra Is.  
VU..... India  
VU4..... Laccadive Is.  
VU5..... Andaman & Nicobar Is.

VQ1..... Zanzibar  
VQ8..... Chagos, Mauritius & Rodriguez Is.  
VQ9..... Seychelles Is.  
VR1..... Br. Phoenix, Ellice, Gilbert & Ocean Is.  
VR2..... Fiji Is.  
VR3..... Fanning, Line Is.  
VR4..... Solomon Is.  
VR5..... Tonga Is.  
VR6..... Pitcairn Is.  
VS5..... Brunei  
VS6..... Hong Kong  
VS9..... Aden, Kamaran, Socotra Is.  
VU..... India  
VU4..... Laccadive Is.  
VU5..... Andaman & Nicobar Is.

VQ1..... Zanzibar  
VQ8..... Chagos, Mauritius & Rodriguez Is.  
VQ9..... Seychelles Is.  
VR1..... Br. Phoenix, Ellice, Gilbert & Ocean Is.  
VR2..... Fiji Is.  
VR3..... Fanning, Line Is.  
VR4..... Solomon Is.  
VR5..... Tonga Is.  
VR6..... Pitcairn Is.  
VS5..... Brunei  
VS6..... Hong Kong  
VS9..... Aden, Kamaran, Socotra Is.  
VU..... India  
VU4..... Laccadive Is.  
VU5..... Andaman & Nicobar Is.

VQ1..... Zanzibar  
VQ8..... Chagos, Mauritius & Rodriguez Is.  
VQ9..... Seychelles Is.  
VR1..... Br. Phoenix, Ellice, Gilbert & Ocean Is.  
VR2..... Fiji Is.  
VR3..... Fanning, Line Is.  
VR4..... Solomon Is.  
VR5..... Tonga Is.  
VR6..... Pitcairn Is.  
VS5..... Brunei  
VS6..... Hong Kong  
VS9..... Aden, Kamaran, Socotra Is.  
VU..... India  
VU4..... Laccadive Is.  
VU5..... Andaman & Nicobar Is.

VQ1..... Zanzibar  
VQ8..... Chagos, Mauritius & Rodriguez Is.  
VQ9..... Seychelles Is.  
VR1..... Br. Phoenix, Ellice, Gilbert & Ocean Is.  
VR2..... Fiji Is.  
VR3..... Fanning, Line Is.  
VR4..... Solomon Is.  
VR5..... Tonga Is.  
VR6..... Pitcairn Is.  
VS5..... Brunei  
VS6..... Hong Kong  
VS9..... Aden, Kamaran, Socotra Is.  
VU..... India  
VU4..... Laccadive Is.  
VU5..... Andaman & Nicobar Is.

VQ1..... Zanzibar  
VQ8..... Chagos, Mauritius & Rodriguez Is.  
VQ9..... Seychelles Is.  
VR1..... Br. Phoenix, Ellice, Gilbert & Ocean Is.  
VR2..... Fiji Is.  
VR3..... Fanning, Line Is.  
VR4..... Solomon Is.  
VR5..... Tonga Is.  
VR6..... Pitcairn Is.  
VS5..... Brunei  
VS6..... Hong Kong  
VS9..... Aden, Kamaran, Socotra Is.  
VU..... India  
VU4..... Laccadive Is.  
VU5..... Andaman & Nicobar Is.

VQ1..... Zanzibar  
VQ8..... Chagos, Mauritius & Rodriguez Is.  
VQ9..... Seychelles Is.  
VR1..... Br. Phoenix, Ellice, Gilbert & Ocean Is.  
VR2..... Fiji Is.  
VR3..... Fanning, Line Is.  
VR4..... Solomon Is.  
VR5..... Tonga Is.  
VR6..... Pitcairn Is.  
VS5..... Brunei  
VS6..... Hong Kong  
VS9..... Aden, Kamaran, Socotra Is.  
VU..... India  
VU4..... Laccadive Is.  
VU5..... Andaman & Nicobar Is.

VQ1..... Zanzibar  
VQ8..... Chagos, Mauritius & Rodriguez Is.  
VQ9..... Seychelles Is.  
VR1..... Br. Phoenix, Ellice, Gilbert & Ocean Is.  
VR2..... Fiji Is.  
VR3..... Fanning, Line Is.  
VR4..... Solomon Is.  
VR5..... Tonga Is.  
VR6..... Pitcairn Is.  
VS5..... Brunei  
VS6..... Hong Kong  
VS9..... Aden, Kamaran, Socotra Is.  
VU..... India  
VU4..... Laccadive Is.  
VU5..... Andaman & Nicobar Is.

VQ1..... Zanzibar  
VQ8..... Chagos, Mauritius & Rodriguez Is.  
VQ9..... Seychelles Is.  
VR1..... Br. Phoenix, Ellice, Gilbert & Ocean Is.  
VR2..... Fiji Is.  
VR3..... Fanning, Line Is.  
VR4..... Solomon Is.  
VR5..... Tonga Is.  
VR6..... Pitcairn Is.  
VS5..... Brunei  
VS6..... Hong Kong  
VS9..... Aden, Kamaran, Socotra Is.  
VU..... India  
VU4..... Laccadive Is.  
VU5..... Andaman & Nicobar Is.

VQ1..... Zanzibar  
VQ8..... Chagos, Mauritius & Rodriguez Is.  
VQ9..... Seychelles Is.  
VR1..... Br. Phoenix, Ellice, Gilbert & Ocean Is.  
VR2..... Fiji Is.  
VR3..... Fanning, Line Is.  
VR4..... Solomon Is.  
VR5..... Tonga Is.  
VR6..... Pitcairn Is.  
VS5..... Brunei  
VS6..... Hong Kong  
VS9..... Aden, Kamaran, Socotra Is.  
VU..... India  
VU4..... Laccadive Is.  
VU5..... Andaman & Nicobar Is.

VQ1..... Zanzibar  
VQ8..... Chagos, Mauritius & Rodriguez Is.  
VQ9..... Seychelles Is.  
VR1..... Br. Phoenix, Ellice, Gilbert & Ocean Is.  
VR2..... Fiji Is.  
VR3..... Fanning, Line Is.  
VR4..... Solomon Is.  
VR5..... Tonga Is.  
VR6..... Pitcairn Is.  
VS5..... Brunei  
VS6..... Hong Kong  
VS9..... Aden, Kamaran, Socotra Is.  
VU..... India  
VU4..... Laccadive Is.  
VU5..... Andaman & Nicobar Is.

VQ1..... Zanzibar  
VQ8..... Chagos, Mauritius & Rodriguez Is.  
VQ9..... Seychelles Is.  
VR1..... Br. Phoenix, Ellice, Gilbert & Ocean Is.  
VR2..... Fiji Is.  
VR3..... Fanning, Line Is.  
VR4..... Solomon Is.  
VR5..... Tonga Is.  
VR6..... Pitcairn Is.  
VS5..... Brunei  
VS6..... Hong Kong  
VS9..... Aden, Kamaran, Socotra Is.  
VU..... India  
VU4..... Laccadive Is.  
VU5..... Andaman & Nicobar Is.

VQ1..... Zanzibar  
VQ8..... Chagos, Mauritius & Rodriguez Is.  
VQ9..... Seychelles Is.  
VR1..... Br. Phoenix, Ellice, Gilbert & Ocean Is.  
VR2..... Fiji Is.  
VR3..... Fanning, Line Is.  
VR4..... Solomon Is.  
VR5..... Tonga Is.  
VR6..... Pitcairn Is.  
VS5..... Brunei  
VS6..... Hong Kong  
VS9..... Aden, Kamaran, Socotra Is.  
VU..... India  
VU4..... Laccadive Is.  
VU5..... Andaman & Nicobar Is.

VQ1..... Zanzibar  
VQ8..... Chagos, Mauritius & Rodriguez Is.  
VQ9..... Seychelles Is.  
VR1..... Br. Phoenix, Ellice, Gilbert & Ocean Is.  
VR2..... Fiji Is.  
VR3..... Fanning, Line Is.  
VR4..... Solomon Is.  
VR5..... Tonga Is.  
VR6..... Pitcairn Is.  
VS5..... Brunei  
VS6..... Hong Kong  
VS9..... Aden, Kamaran, Socotra Is.  
VU..... India  
VU4..... Laccadive Is.  
VU5..... Andaman & Nicobar Is.

VQ1..... Zanzibar  
VQ8..... Chagos, Mauritius & Rodriguez Is.  
VQ9..... Seychelles Is.  
VR1..... Br. Phoenix, Ellice, Gilbert & Ocean Is.  
VR2..... Fiji Is.  
VR3..... Fanning, Line Is.  
VR4..... Solomon Is.  
VR5..... Tonga Is.  
VR6..... Pitcairn Is.  
VS5..... Brunei  
VS6..... Hong Kong  
VS9..... Aden, Kamaran, Socotra Is.  
VU..... India  
VU4..... Laccadive Is.  
VU5..... Andaman & Nicobar Is.

VQ1..... Zanzibar  
VQ8..... Chagos, Mauritius & Rodriguez Is.  
VQ9..... Seychelles Is.  
VR1..... Br. Phoenix, Ellice, Gilbert & Ocean Is.  
VR2..... Fiji Is.  
VR3..... Fanning, Line Is.  
VR4..... Solomon Is.  
VR5..... Tonga Is.  
VR6..... Pitcairn Is.  
VS5..... Brunei  
VS6..... Hong Kong  
VS9..... Aden, Kamaran, Socotra Is.  
VU..... India  
VU4..... Laccadive Is.  
VU5..... Andaman & Nicobar Is.

VQ1..... Zanzibar  
VQ8..... Chagos, Mauritius & Rodriguez Is.  
VQ9..... Seychelles Is.  
VR1..... Br. Phoenix, Ellice, Gilbert & Ocean Is.  
VR2..... Fiji Is.  
VR3..... Fanning, Line Is.  
VR4..... Solomon Is.  
VR5..... Tonga Is.  
VR6..... Pitcairn Is.  
VS5..... Brunei  
VS6..... Hong Kong  
VS9..... Aden, Kamaran, Socotra Is.  
VU..... India  
VU4..... Laccadive Is.  
VU5..... Andaman & Nicobar Is.

VQ1..... Zanzibar  
VQ8..... Chagos, Mauritius & Rodriguez Is.  
VQ9..... Seychelles Is.  
VR1..... Br. Phoenix, Ellice, Gilbert & Ocean Is.  
VR2..... Fiji Is.  
VR3..... Fanning, Line Is.  
VR4..... Solomon Is.  
VR5..... Tonga Is.  
VR6..... Pitcairn Is.  
VS5..... Brunei  
VS6..... Hong Kong  
VS9..... Aden, Kamaran, Socotra Is.  
VU..... India  
VU4..... Laccadive Is.  
VU5..... Andaman & Nicobar Is.

VQ1..... Zanzibar  
VQ8..... Chagos, Mauritius & Rodriguez Is.  
VQ9..... Seychelles Is.  
VR1..... Br. Phoenix, Ellice, Gilbert & Ocean Is.  
VR2..... Fiji Is.  
VR3..... Fanning, Line Is.  
VR4..... Solomon Is.  
VR5..... Tonga Is.  
VR6..... Pitcairn Is.  
VS5..... Brunei  
VS6..... Hong Kong  
VS9..... Aden, Kamaran, Socotra Is.  
VU..... India  
VU4..... Laccadive Is.  
VU5..... Andaman & Nicobar Is.

VQ1..... Zanzibar  
VQ8..... Chagos, Mauritius & Rodriguez Is.  
VQ9..... Seychelles Is.  
VR1..... Br. Phoenix, Ellice, Gilbert & Ocean Is.  
VR2..... Fiji Is.  
VR3..... Fanning, Line Is.  
VR4..... Solomon Is.  
VR5..... Tonga Is.  
VR6..... Pitcairn Is.  
VS5..... Brunei  
VS6..... Hong Kong  
VS9..... Aden, Kamaran, Socotra Is.  
VU..... India  
VU4..... Laccadive Is.  
VU5..... Andaman & Nicobar Is.

VQ1..... Zanzibar  
VQ8..... Chagos, Mauritius & Rodriguez Is.  
VQ9..... Seychelles Is.  
VR1..... Br. Phoenix, Ellice, Gilbert & Ocean Is.  
VR2..... Fiji Is.  
VR3..... Fanning, Line Is.  
VR4..... Solomon Is.  
VR5..... Tonga Is.  
VR6..... Pitcairn Is.  
VS5..... Brunei  
VS6..... Hong Kong  
VS9..... Aden, Kamaran, Socotra Is.  
VU..... India  
VU4..... Laccadive Is.  
VU5..... Andaman & Nicobar Is.

VQ1..... Zanzibar  
VQ8..... Chagos, Mauritius & Rodriguez Is.  
VQ9..... Seychelles Is.  
VR1..... Br. Phoenix, Ellice, Gilbert & Ocean Is.  
VR2..... Fiji Is.  
VR3..... Fanning, Line Is.  
VR4..... Solomon Is.  
VR5..... Tonga Is.  
VR6..... Pitcairn Is.  
VS5..... Brunei  
VS6..... Hong Kong  
VS9..... Aden, Kamaran, Socotra Is.  
VU..... India  
VU4..... Laccadive Is.  
VU5..... Andaman & Nicobar Is.

VQ1..... Zanzibar  
VQ8..... Chagos, Mauritius & Rodriguez Is.  
VQ9..... Seychelles Is.  
VR1..... Br. Phoenix, Ellice, Gilbert & Ocean Is.  
VR2..... Fiji Is.  
VR3..... Fanning, Line Is.  
VR4..... Solomon Is.  
VR5..... Tonga Is.  
VR6..... Pitcairn Is.  
VS5..... Brunei  
VS6..... Hong Kong  
VS9..... Aden, Kamaran, Socotra Is.  
VU..... India  
VU4..... Laccadive Is.  
VU5..... Andaman & Nicobar Is.

VQ1..... Zanzibar  
VQ8..... Chagos, Mauritius & Rodriguez Is.  
VQ9..... Seychelles Is.  
VR1..... Br. Phoenix, Ellice, Gilbert & Ocean Is.  
VR2..... Fiji Is.  
VR3..... Fanning, Line Is.  
VR4..... Solomon Is.  
VR5..... Tonga Is.  
VR6..... Pitcairn Is.  
VS5..... Brunei  
VS6..... Hong Kong  
VS9..... Aden, Kamaran, Socotra Is.  
VU..... India  
VU4..... Laccadive Is.  
VU5..... Andaman & Nicobar Is.

VQ1..... Zanzibar  
VQ8..... Chagos, Mauritius & Rodriguez Is.  
VQ9..... Seychelles Is.  
VR1..... Br. Phoenix, Ellice, Gilbert & Ocean Is.  
VR2..... Fiji Is.  
VR3..... Fanning, Line Is.  
VR4..... Solomon Is.  
VR5..... Tonga Is.  
VR6..... Pitcairn Is.  
VS5..... Brunei  
VS6..... Hong Kong  
VS9..... Aden, Kamaran, Socotra Is.  
VU..... India  
VU4..... Laccadive Is.  
VU5..... Andaman & Nicobar Is.

VQ1..... Zanzibar  
VQ8..... Chagos, Mauritius & Rodriguez Is.  
VQ9..... Seychelles Is.  
VR1..... Br. Phoenix, Ellice, Gilbert & Ocean Is.  
VR2..... Fiji Is.  
VR3..... Fanning, Line Is.  
VR4..... Solomon Is.  
VR5..... Tonga Is.  
VR6..... Pitcairn Is.  
VS5..... Brunei  
VS6..... Hong Kong  
VS9..... Aden, Kamaran, Socotra Is.  
VU..... India  
VU4..... Laccadive Is.  
VU5..... Andaman & Nicobar Is.



## CENSUS OF AMATEUR RADIO LICENSES\* in the U.S.A. by classes, within states and call areas

Call Area	State	Novice	Tech-nician	Con-ditional	General	Advanced	Extra	Club	Military	Multiple stations	State totals	YL's (Included in state totals)
#1	Conn.	173	783	913	1,974	650	127	87	12	69	4,788	145
	Maine	50	114	684	413	256	56	16	16	31	1,636	60
	Mass.	350	3,419	687	4,740	1,566	275	125	44	154	11,360	408
	N.H.	56	411	198	598	210	35	19	9	49	1,585	78
	R.I.	41	550	114	653	187	38	26	6	21	1,636	68
	Vt.	29	67	258	162	82	14	8	5	25	650	39
		<u>699</u>	<u>5,344</u>	<u>2,854</u>	<u>8,540</u>	<u>2,951</u>	<u>545</u>	<u>281</u>	<u>92</u>	<u>349</u>	<u>21,655</u>	<u>798</u>
#2	N.J.	577	3,714	450	5,834	1,951	368	173	24	97	13,188	327
	N.Y.	<u>1,055</u>	<u>6,910</u>	<u>1,023</u>	<u>11,214</u>	<u>3,108</u>	<u>604</u>	<u>352</u>	<u>71</u>	<u>202</u>	<u>24,539</u>	<u>660</u>
		<u>1,632</u>	<u>10,624</u>	<u>1,473</u>	<u>17,048</u>	<u>5,059</u>	<u>972</u>	<u>525</u>	<u>95</u>	<u>299</u>	<u>37,727</u>	<u>987</u>
#3	Del.	25	123	45	335	74	14	8	4	10	638	16
	Md.	192	958	324	2,536	857	160	60	25	61	5,173	119
	Pa.	613	4,123	984	6,934	1,838	317	213	51	141	15,214	446
	D.C.	27	110	41	307	145	29	17	13	26	715	14
		<u>857</u>	<u>5,314</u>	<u>1,394</u>	<u>10,112</u>	<u>2,914</u>	<u>520</u>	<u>298</u>	<u>93</u>	<u>238</u>	<u>21,740</u>	<u>595</u>
#4	Ala.	125	738	952	1,443	373	63	26	22	29	3,771	139
	Fla.	347	1,693	2,130	3,945	1,707	254	93	46	211	10,426	385
	Ga.	158	646	1,016	1,594	497	89	48	34	36	4,118	109
	Ky.	96	456	591	895	310	52	31	16	25	2,472	57
	N.C.	180	624	1,137	1,564	541	72	46	34	61	4,259	129
	S.C.	102	140	1,158	484	156	29	21	30	19	2,139	58
	Tenn.	205	1,189	762	1,687	439	74	40	15	46	4,457	125
	Va.	215	852	955	2,511	891	164	59	61	85	5,793	132
		<u>1,428</u>	<u>6,338</u>	<u>8,701</u>	<u>14,123</u>	<u>4,914</u>	<u>797</u>	<u>364</u>	<u>258</u>	<u>512</u>	<u>37,435</u>	<u>1,134</u>
#5	Ark.	98	289	489	585	204	30	25	13	29	1,762	81
	La.	152	387	850	1,262	375	63	38	27	31	3,185	79
	Miss.	55	137	603	559	194	21	12	12	31	1,624	36
	N.M.	66	139	697	435	262	52	16	18	23	1,708	73
	Okla.	134	711	643	1,257	491	61	43	44	40	3,424	121
	Texas	623	2,654	3,707	5,665	2,055	281	153	115	153	15,406	643
		<u>1,128</u>	<u>4,317</u>	<u>6,989</u>	<u>9,763</u>	<u>3,581</u>	<u>508</u>	<u>287</u>	<u>229</u>	<u>307</u>	<u>27,109</u>	<u>1,033</u>
#6	Calif.	<u>1,627</u>	<u>9,132</u>	<u>4,270</u>	<u>16,671</u>	<u>7,019</u>	<u>914</u>	<u>496</u>	<u>200</u>	<u>501</u>	<u>40,830</u>	<u>1,390</u>
#7	Ariz.	177	691	657	1,197	461	70	34	41	54	3,382	151
	Idaho	51	36	611	167	139	14	10	17	21	1,066	57
	Mont.	47	63	734	163	132	25	15	15	9	1,203	59
	Nev.	20	58	392	170	110	12	8	14	32	816	33
	Oreg.	245	617	986	1,757	622	68	62	37	41	4,435	215
	Utah	127	266	205	565	167	28	15	24	16	1,413	42
	Wash.	300	1,138	1,497	2,896	1,012	144	69	53	66	7,175	323
	Wyo.	44	24	265	111	62	7	11	4	7	535	24
		<u>1,011</u>	<u>2,893</u>	<u>5,347</u>	<u>7,026</u>	<u>2,705</u>	<u>368</u>	<u>224</u>	<u>205</u>	<u>246</u>	<u>20,025</u>	<u>904</u>
#8	Mich.	599	3,030	1,196	4,632	1,166	128	134	37	109	11,031	363
	Ohio	738	5,890	733	6,573	1,883	203	209	47	134	16,410	574
	W.Va.	113	448	229	796	166	31	21	11	27	1,842	43
		<u>1,450</u>	<u>9,368</u>	<u>2,158</u>	<u>12,001</u>	<u>3,215</u>	<u>362</u>	<u>364</u>	<u>95</u>	<u>270</u>	<u>29,283</u>	<u>980</u>
#9	Ill.	723	3,734	2,021	6,504	1,894	238	216	41	163	15,534	502
	Ind.	272	2,233	626	2,615	734	86	118	22	68	6,774	263
	Wisc.	293	855	1,097	1,782	678	67	82	30	53	4,937	129
		<u>1,288</u>	<u>6,822</u>	<u>3,744</u>	<u>10,901</u>	<u>3,306</u>	<u>391</u>	<u>416</u>	<u>93</u>	<u>284</u>	<u>27,245</u>	<u>894</u>
#10	Colo.	149	487	771	1,332	507	86	42	32	40	3,446	130
	Iowa	236	649	683	1,834	576	70	51	17	41	4,157	132
	Kans.	236	354	1,128	1,249	456	76	44	48	28	3,619	149
	Minn.	277	556	989	1,923	630	91	61	19	33	4,579	126
	Mo.	237	1,117	972	2,312	766	113	77	25	47	5,666	193
	Nebr.	132	311	469	825	273	40	32	18	12	2,212	80
	N.D.	35	17	592	80	74	14	11	14	11	748	30
	S.D.	45	50	291	265	94	8	10	10	11	784	40
		<u>1,347</u>	<u>3,541</u>	<u>5,895</u>	<u>9,820</u>	<u>3,376</u>	<u>498</u>	<u>328</u>	<u>183</u>	<u>223</u>	<u>25,211</u>	<u>880</u>
Grand total, 48 states and D.C. only		<u>12,467</u>	<u>63,693</u>	<u>42,825</u>	<u>116,005</u>	<u>39,040</u>	<u>5,875</u>	<u>3,583</u>	<u>1,543</u>	<u>3,229</u>	<u>288,260</u>	<u>9,595</u>

\* From the Spring 1968 Radio Amateur Callbook.



# A. R. R. L. COUNTRIES LIST

The ARRL Postwar Countries List is the official standard used in connection with the DX Century Club. To qualify for the DX Century Club Award, an applicant must submit confirmations from at least 100 different countries contacted after November 15, 1945, in accordance with the Postwar DXCC Rules. Copies of the DXCC Rules will be furnished by ARRL on request.

AC3.....Sikkim  
AC4.....Tibet  
AC.....Bhutan  
AP.....East Pakistan  
AP.....West Pakistan  
BV, (C3).....Fomosa  
BY, (C).....China  
\*C9.....Manchuria  
CE.....Chile  
CE9, KC4, LU-Z, VKØ, VP8, OR4, etc.....Antarctica  
CE9 (See VP8)  
CE9A.....Easter Island  
CEØX.....San Felix  
CEZ.....Juan Fernandez arch.  
CM, CØ.....Cuba  
\*CN2.....Tangier  
CN2, 8, 9.....Morocco  
CP.....Bolivia  
CR 3, 5.....Portuguese Guinea  
CR4.....Cape Verde Islands  
CR5.....Principe, Sao Thome  
CR6.....Mozambique  
CR7.....Damao, Diu  
\*CR8.....Goa  
CR8, CR1Ø.....Portuguese Timor  
CR9.....Macao  
CT1.....Portugal  
CT2.....Azores  
CT3.....Madeira Islands  
CX.....Uruguay  
DJ, DL, DM.....Germany  
DU.....Philippine Islands  
EA.....Spain  
EA6.....Balearic Islands  
EA8.....Canary Islands  
EA9.....Ifni  
EA9.....Rio de Oro  
EA9.....Spanish Morocco  
EAØ.....Spanish Guinea  
EL.....Republic of Ireland  
EL.....Liberia  
EP.....Eritrea  
\*ET2.....Ethiopia  
ET3.....Ethiopia  
F.....France  
FA, 7X2, 3.....Algeria  
FB8.....Amsterdam & St. Paul Is.  
FB8.....Grozet Is.  
FB8 (See FB8)  
FB8.....Kerguelen Islands  
FB8 (See 5R8)  
FB8 (See FR7)  
FC (unofficial).....Corsica  
FD (See 5V)  
FE8 (See TJ)  
FF4 (See TU)  
FF7 (See 5T)  
FF8 (See TY)  
FF8 (See TZ)  
FF8 (See 5U7)  
FF8 (See XT)  
FF8 (See 6W8)  
\*FF8.....French West Africa  
FG7.....Guadeloupe  
FH8, FB8.....Comoro Islands  
\*FIB.....French Indo-China  
FK8.....New Caledonia  
FL8.....French Somaliland  
FM7.....Martinique  
\*FN.....French India  
FØ8.....Clipperton Island  
FØ8.....French Oceania  
FP8.....St. Pierre & Miquelon Is.  
FQ8 (See TL)  
FQ8 (See TJ)  
FQ8 (See TN)  
FQ8 (See TR)  
\*FØ8.....French Equatorial Africa  
\*FR7.....Glorioso Islands  
\*FR7.....Juan de Nova  
FR7.....Reunion  
FR7.....Tromelin  
FS7.....Saint Martin  
FØ8, YJ.....New Hebrides  
FØ8.....Wallis & Futuna Islands  
FY7.....French Guiana & Inini  
G.....England  
GC.....Guernsey & Dependencies  
GD.....Jersey Island  
GI.....Isle of Man  
GL.....Northern Ireland  
GM.....Scotland  
GW.....Wales  
HA.....Hungary  
HB.....Switzerland  
HC.....Ecuador  
HC8.....Galapagos Islands  
HE, HBØ.....Liechtenstein  
HH.....Haiti  
HI.....Dominican Republic  
HK.....Colombia  
HKØ.....Bajo Nuevo  
HKØ.....Malpelo Is.  
HKØ.....San Andres & Providencia  
HL, HM.....Korea  
HP.....Panama  
HR.....Honduras  
HS.....Thailand  
HV.....Vatican  
HZ, 7Z.....Saudi Arabia  
II, IT1.....Italy  
\*II1.....Trieste  
\*IS.....Italian Somaliland  
IS1.....Sardinia  
JA, KA.....Japan  
JT1.....Mongolia  
JY.....Jordan  
\*JZØ.....Netherlands New Guinea  
K, W.....United States of America  
KA (See JA)  
KB6.....Baker, Howland & American Phoenix Islands  
KC4 (See CE9)  
KC4.....Navassa Island  
KC6.....Eastern Caroline Isls.  
KC6.....Western Caroline Isls.  
KG1 (See OX)  
KG4.....Guantanamo Bay  
KG6.....Guam  
KG6.....Marcus Island  
KG6.....Mariana Islands  
KG6.....Bonin & Volcano Islands  
KH6.....Hawaiian Islands  
KH6.....Kure Island  
KJ6.....Johnston Island  
KL7.....Alaska  
KM6.....Midway Islands  
KP4.....Puerto Rico  
KP6.....Palmyra Group, Jarvis Is.  
KR6.....Ryukyu Islands  
KS4B.....Serrana Bank & Roncador Cay  
KS4.....Swan Islands  
KS6.....American Samoa  
KV4.....Virgin Islands  
KW6.....Wake Island  
KX6.....Marshall Islands  
KZ5.....Canal Zone  
LA.....Bouvet Island  
LA.....Jan Mayen  
LA.....Norway  
LA.....Svalbard  
LU.....Argentina  
LU-Z (See CE9)  
LX.....Luxembourg  
LZ.....Bulgaria  
M1, 9A1.....San Marino  
MP4.....Bahrein  
MP4.....Qatar  
MP4M, VS9.....Sultanate of Muscat & Oman  
MP4.....Trucial Oman  
OA.....Peru  
OB5.....Lebanon  
OE.....Austria  
OH.....Finland  
OHØ.....Åland Islands  
OK.....Czechoslovakia  
ON4, 5.....Belgium  
OQ5, Ø (See 9Q5)  
OX, KG1.....Greenland  
OY.....Faeroe Islands  
OZ.....Denmark  
PAØ, P11.....Netherlands  
PJ.....Netherlands Antilles  
PJ2M.....Sint Maarten  
\*PK1, 2, 3.....Java  
\*PK4.....Sumatra  
\*PK5.....Netherlands Borneo  
\*PK6.....Celebes & Molucca Islands  
PX.....Andorra  
PY.....Brazil  
PYØ.....Fernando de Noronha  
PYØ.....St. Peter & St. Paul's Rocks  
PYØ.....Trindade & Martin Vaz Is.  
PZ1.....Surinam  
SL, SM.....Sweden  
SP.....Poland  
ST2.....Sudan  
SU.....Egypt  
SV.....Crete  
SV.....Dodecanese  
SV.....Greece  
TA.....Turkey  
TF.....Iceland  
TG.....Guatemala  
TI.....Costa Rica  
TI9.....Cocos Island  
TJ.....Cameroun  
TL.....Central African Rep.  
TL.....Congo Rep.  
\*TR.....Gabon Rep.  
\*TT.....Chad Rep.  
\*TU.....Ivory Coast  
\*TY.....Dahomey Rep.  
\*TZ.....Mali Rep.  
UA, UV, UW1-6, UN1.....European Russian S.F.S.R.  
UA1.....Franz Josef Land  
UA2.....Kaliningradsk  
UA, UWØ, Ø.....Asiatic R. S.F.S.R.  
UB5, UT5.....Ukraine  
UC2.....White Russian, S.S.S.R.  
UD6.....Azerbaijan  
UF6.....Georgia  
UG6.....Armenia  
UH8.....Turkoman  
UI8.....Uzbek  
UJ8.....Tadzhik  
UL7.....Kazakh  
UM8.....Kirgiz  
\*UN1.....Kareli-Finnish Republic  
UØ5.....Moldavia  
UP2.....Lithuania  
UQ2.....Latvia  
UR2.....Estonia  
VE, VØ.....Canada  
VK.....Australia (inc. Tasmania)  
VK.....Lord Howe Island  
VK9, ZC3.....Willis Islands  
VK9, ZC3.....Christmas Islands  
VK9.....Cocos Islands  
VK9.....Nauru Island  
VK9.....Norfolk Island  
VK9.....Papua Territory  
VK9.....Territory of New Guinea  
VKØ (See CE9)  
VKØ.....Heard Island  
VKØ.....Macquarie Island  
\*VO (See VE)  
\*VO.....Newfoundland, Labrador  
\*VP1.....British Honduras  
\*VP2.....Anguilla  
\*VP2.....Antigua, Barbuda  
\*VP2.....British Virgin Islands  
\*VP2.....Dominica  
\*VP2.....Grenada & Dependencies  
\*VP2.....Montserrat  
\*VP2.....St. Kitts, Nevis  
\*VP2.....St. Lucia  
\*VP2.....St. Vincent & Dependencies  
\*VP3.....British Guiana  
VP4, 9Y4.....Trinidad & Tobago  
VP5.....Cayman Islands  
VP5 (See 6Y5)  
VP5.....Turks & Caicos Islands  
VP6.....Barbados  
VP7.....Bahama Islands  
VP8 (See CE9)  
VP8.....Falkland Islands  
VP8, LU-Z.....So. Georgia Is.  
VP8, LU-Z.....So. Orkney Is.  
VP8, LU-Z.....So. Sandwich Is.  
VP8, LU-Z, CE9.....So. Shetland Is.  
VQ1.....Bermuda Islands  
VQ1.....Zanzibar  
VQ2 (See 9J2)  
VQ3 (See 5H3)  
VQ4 (See 5Z4)  
VQ5 (See 5X5)  
\*VQ6.....British Somaliland  
VØ8.....Agalega & St. Brandon  
VØ8.....Chagos Islands  
VØ8.....Mauritius  
VØ8.....Rodriguez Island  
VØ9.....Aldabra Isls.  
VØ9.....Seychelles  
VR1.....British Phoenix Islands  
VR1.....Gilbert & Ellice Is. & Ocean Islands  
VR2.....Fiji Islands  
VR3.....Fanning & Christmas Is.  
VR5.....Solomon Islands  
VR6.....Tonga Islands  
VR6.....Pitcairn Islands  
\*VS1, 9M4.....Singapore  
VS1, 9M2 (See 9M2, 4)  
VS2 (See 9M2)  
\*VS4.....Sarawak  
VS4, ZC5 (See 9M6, 8)  
VS5.....Brunei  
VS6.....Hong Kong  
VS9.....Aden & Socotra  
VS9H.....Kuria Muria Isls.  
VS9M.....Maldives Islands  
VS9 (See MP4)  
VU.....Andaman & Nicobar Isls.  
VU.....India  
VU.....Laccadive Islands  
W (See K)  
XE, XF.....Mexico  
XF4.....Revilla Gigeo  
\*XT.....Voltaic Rep.  
XU.....Cambodia  
XV5 (See 3W8)  
XW8.....Laos  
XZ2.....Burma  
YA.....Afghanistan  
YI (See FØ8)  
YK.....Syria  
YN, YNØ.....Nicaragua  
YO.....Rumania  
YS.....Salvador  
YU.....Yugoslavia  
YV.....Venezuela  
YVØ.....Aves Island  
ZA.....Albania  
ZB1, 9H1.....Malta  
ZB2.....Gibraltar  
ZC3 (See VK9)  
ZC4 (See 5B4)  
ZC5 (See 9M6, 8)  
\*ZC5.....British North Borneo  
ZC6.....Palestine  
ZD1 (See 9L1)  
ZD2 (See 5N2)  
ZD3.....The Gambia  
ZD4 (See 9G1)  
\*ZD4.....Gold Coast, Togoland  
ZD5, ZS7.....Swaziland  
ZD6 (See 7Q7)  
ZD7.....St. Helena  
ZD8.....Ascension Island  
ZD9.....Tristan da Cunha & Gough Island  
ZE.....Rhodesia  
ZF1 (See VP5)  
ZK1.....Cook Islands  
ZK1.....Manihiki Islands  
ZK2.....Niue  
ZL.....Auckland Is. & Campbell Is.  
ZL.....Chatham Islands  
ZL.....Kermadec Islands  
ZL.....New Zealand  
ZL5 (See CE9)  
ZM6.....Western Samoa  
ZM7.....Tokelau  
ZP.....Paraguay  
ZS1, 2, 4, 5, 6.....South Africa  
ZS2.....Prince Edward & Marion Is.  
ZS3.....Southwest Africa  
ZS7 (See ZD5)  
ZS8.....Basutoland  
ZS9.....Bechuanaland  
1S.....Spratly Is.  
3A.....Monaco  
3V8.....Tunisia  
3W8, XV5.....Vietnam  
4S7.....Ceylon  
4U.....I.T.U. Geneva  
4W.....Yemen  
4X.....Israel  
5A.....Libya  
5B4, ZC4.....Cyprus  
5H3, VØ3.....Tanganyika  
5N2, ZD2.....Nigeria  
5Ø8, FB8.....Malagasy Rep.  
\*5T.....Mauritania  
\*5U7.....Niger Rep.  
5V.....Togo Rep.  
5W1 (See ZM6)  
5X5, VQ5.....Uganda  
5Z4, VQ4.....Kenya  
6Ø1, 2, 6.....Somali Rep.  
\*6W8, FF8.....Senegal Rep.  
6Y5, VP5.....Jamaica  
7G1.....Rep. of Guinea  
7Q7, ZD6.....Malawi  
7X2, 3 (See FA)  
7Z (See HZ)  
\*8F.....Indonesia  
8Z4.....Saudi Arabia/Iraq Neutral Zone  
8Z5 (See 9K3)  
9A1 (See M1)  
\*9G1, ZD4.....Ghana  
9H1 (See ZB1)  
9J2, VQ2.....Zambia  
9K2.....Kuwait  
9K3, 8Z5.....Kuwait/Saudi Arabia Neutral Zone  
9L1, ZD1.....Sierra Leone  
\*9M2.....Malaya  
\*9M2, 4.....West Malaysia  
\*9M6, 8.....East Malaysia  
9N1.....Nepal  
9Q5.....Rep. of the Congo  
\*9Q5, Ø, Ø.....Saur  
\*9U5.....Burundi  
\*9U5.....Ruanda-Urundi  
\*9X5.....Rwanda  
9Y4 (See VP4)





## The Radio Amateur's Journal

Articles, departments, and features conceived, written and edited with the interests of the active ham in mind. Published monthly, CQ contains regular departments and features covering VHF, RTTY, DX, Novice, Contests, New Products and much more!

### DO YOU HAVE A SUBSCRIPTION?

**CQ Magazine**

14 Vanderventer Ave.

Port Washington, N.Y. 11050

1 Year .....\$ 6.00

2 Years ..... 11.00

3 Years ..... 15.00

Pan-American and Foreign: 1 year \$6.00, 2 years \$11.00, 3 years \$15.00.



**WANTED  
YOUR LATEST  
QTH!**

Is there any change in your QTH? Check this issue — is your name and address correct as listed?

If there is a correction or change to be made send in your official QSL card with the new information. Please print your name as it appears on your FCC license.

A regular listing is FREE and of course there is no charge for changes or corrections in your address.

Help keep your CALLBOOK up-to-date!

**RADIO AMATEUR CALLBOOK**

4844 W. Fullerton Avenue

Chicago, Illinois 60639

### Order Your Special Listing for the next issue . . .

*assuring instant recognition of  
your QTH in the CALLBOOK.*

Fill in the coupon below and send it along with your check or money order for \$6.00, which covers 3 lines for 1 year (additional lines \$2.00 per line).

The publisher reserves the right to reject any copy which he feels is not in keeping with the publication's standards.

CALL NAME

ADDRESS

CITY STATE ZIP CODE

Reservations and copy instructions must reach our office on the fifteenth of January, April, July and October for the March, June, September and December issues of the CALLBOOK respectively.

**RADIO AMATEUR CALLBOOK**

4844 W. Fullerton Avenue

Chicago, Illinois 60639



# CENSUS OF AMATEUR RADIO LICENSES OF THE WORLD \*

Prefix	Country	Number of radio amateur licenses	Prefix	Country	Number of radio amateur licenses	Prefix	Country	Number of radio amateur licenses	
AC3	Sikkim.....	1	KC4AA, US	Antarctica.....	13	VR2	Fiji Is.....	21	
AC4	Tibet.....	2	KC6	Caroline Is.....	20	VR3	Line Is.....	1	
AC5	Bhutan.....	2	KG4	Guantanamo Bay, Cuba.....	21	VR4	Solomon Is.....	6	
AP	Pakistan.....	49	KG6	Mariana Is.....	98	VR6	Pitcairn Is.....	1	
			KG6I	Volcano Is.....	4	VS5	Brunei.....	4	
BV	Taiwan (Formosa).....	1	KH6	Hawaii.....	1,484	VS6	Hong Kong.....	35	
			KJ6	Johnston Is.....	12	VS9	Aden, Kamaran, Maldives, Socotra Is....	47	
CE	Chile.....	1,926	KL7	Alaska.....	1,274	VU	India.....	416	
CE9	South Shetland Is, Graham Land.....	25	KM6	Midway Is.....	11				
CE0A	Easter Is.....	6	KP4	Puerto Rico.....	957	W, K	United States of America (See K, W).....		
CE0Z	Juan Fernandez Is.....	10	KP6	Jarvis & Palmyra Is.....	3				
CM, CO	Cuba.....	399	KR6, 8	Ryukyu Is. (Okinawa).....	208	XE, XF	Mexico.....	2,441	
CN	Morocco.....	141	KS4	Swan Is.....	7	XE1	- 1,189		
CP	Bolivia.....	238	KS6	U. S. Samoa.....	32	XE2	- 1,143		
CR3	Portuguese Guinea.....	3	KV4	Virgin Is.....	67	XE3	- 98		
CR4	Cape Verde Is.....	16	KW6	Wake Is.....	31	XE6	- 1		
CR5	Sao Tome & Principe Is.....	2	KX6	Marshall Is.....	56	XE0	- 10		
CR6	Angola.....	195	KZ5	Canal Zone.....	193	XT2	Upper Volta.....	3	
CR7	Mozambique.....	171				XW8	Laos.....	7	
CR8	Timor Is.....	5	LA	Norway.....	2,136	XZ	Burma.....	31	
CR9	Macao.....	6	LU	Argentina.....	11,875				
CT1	Portugal.....	258	LX	Luxembourg.....	68	YA	Afghanistan.....	7	
CT2	Azores Is.....	8	LZ	Bulgaria.....	319	YJ	New Hebrides.....	13	
CT3	Madeira Is.....	14				YK	Syria.....	10	
CX	Uruguay.....	2,238	M1	San Marino.....	4	YN	Nicaragua.....	227	
			MP4	Bahrein & Das Is, Muscat & Oman, Qatar, Trucial States.....	208	Y0	Rumania.....	25	
DC, DJ, DK, DL	West German Federal Republic.....	12,626				YS	El Salvador.....	197	
DM	East German Democratic Republic.....	1,483	OA	Peru.....	1,034	YU	Yugoslavia.....	1,700	
DU	Philippines.....	143	OD5	Lebanon.....	68	YV	Venezuela.....	3,076	
			OE	Austria.....	959				
EA	Spain.....	1,014	OH	Finland.....	2,044	ZB2	Gibraltar.....	26	
EA6	Balearic Is.....	16	OH0	Aland Is.....	16	ZC4	Cyprus.....	19	
EA8	Canary Is.....	109	OK, OL	Czechoslovakia.....	74	ZD3	Gambia.....	7	
EA9	Spanish Sahara, Ifni, Ceuta y Melilla...	18	ON	Belgium.....	1,112	ZD5	Swaziland.....	10	
EA0	Rio Muni.....	4	OX	Greenland.....	42	ZD7	Saint Helena.....	4	
EI	Ireland.....	271	OY	Faeroe Is.....	45	ZD8	Ascension Is.....	13	
EL, 5L	Liberia.....	64	OZ	Denmark.....	2,737	ZD9	Tristan da Cunha & Gough Is.....	2	
EP	Iran.....	25				ZE	Rhodesia.....	179	
ET3	Ethiopia.....	22	PA, PE, PI	Netherlands.....	1,816	ZF1	Cayman Is.....	11	
			PJ	Netherlands Antilles - PJ(A), Aruba...	24	ZK1	Cook Is.....	10	
F	France.....	3,708		PJ(B), Bonaire.....	3	ZK2	Niue Is.....	1	
FB8	Amsterdam, St. Paul, Crozet, Kerguelen, Tromelin Is.....	4		PJ(C), Curacao...	29	ZL	New Zealand.....	3,868	
FG7	Guadeloupe Is.....	27		PJ(M), Saint Maarten.....	5	ZP	Paraguay.....	223	
FH8	Comoro.....	2		PJ(S), Saba Is.....	1	ZS	South Africa.....	2,520	
FK8	New Caledonia.....	26	PX1	Andorra.....	8	ZS3	South-West Africa.....	56	
FL8	French Somaliland.....	6	PY	Brazil.....	9,296	ZS9	Botswana.....	14	
FM7	Martinique.....	19	PY7	Fernando de Noronha Is.....	4				
F08	French Polynesia.....	27	PY0	Trindade & Martim Vaz Is.....	5	3A	Monaco.....	17	
FP8	St. Pierre & Miquelon Is.....	6	PZ	Surinam.....	39	3V8	Tunisia.....	1	
FR7	Reunion Is.....	13							
FS7	Saint Martin.....	1	SL, SM	Sweden.....	3,718	4S7	Ceylon.....	55	
FU8	New Hebrides.....	4	SP	Poland.....	1,970	4U	United Nations, Geneva.....	2	
FW8	Wallis & Futuna Is.....	3	SU	Egypt.....	7	4W1	Yemen.....	8	
FY	French Guiana.....	11	SV	Greece, Crete.....	91	4X4, 4Z4	Israel.....	527	
G	England.....	15,528	TF	Iceland.....	45	5A	Libya.....	50	
GC	Channel Is.....	70	TG	Guatemala.....	181	5H3	Tanzania.....	15	
GD	Isle of Man.....	42	TI	Costa Rica.....	464	5N2	Nigeria.....	17	
GI	Northern Ireland.....	300	TI9	Cocos Is.....	3	5R8	Malagasy Republic.....	13	
GM	Scotland.....	1,124	TJ	Cameroon.....	10	5T5	Mauritania.....	3	
GW	Wales.....	646	TL8	Central African Republic.....	3	5U7	Niger.....	6	
			TN8	Republic of Congo (Brazzaville).....	9	5V	Togo.....	4	
HA, HG	Hungary.....	464	TR8	Gabon.....	5	5W1	Western Samoa.....	5	
HB	Switzerland.....	769	TT8	Chad.....	6	5X5	Uganda.....	4	
HB0	Liechtenstein.....	2	TU2	Ivory Coast.....	31	5Z4	Kenya.....	43	
HC	Ecuador.....	345	TY	Dahomey.....	4				
HC8	Galapagos Is.....	3	VE	Canada.....	12,325	60	Somali Republic.....	6	
HH	Haiti.....	56		VE1 - 1,121		6W8	Senegal.....	26	
HI	Dominican Republic.....	311		VE2 - 2,218		6Y5	Jamaica.....	59	
HK	Colombia.....	1,535		VE3 - 4,811					
HK0	San Andres & Providencia Is.....	15		VE4 - 557		7G1	Republic of Guinea.....	2	
HM, HL	Korea.....	148		VE5 - 565		7P8, ZS8	Lesotho.....	5	
HP	Panama.....	143		VE6 - 1,095		7Q7	Malawi.....	15	
HR	Honduras.....	151		VE7 - 1,808		7X	Algeria.....	23	
HS	Thailand.....	25		VE8 - 131		7Z, HZ	Saudi Arabia.....	2	
HV	Vatican City.....	2		VE0 - 19					
HZ	Saudi Arabia.....	5				8P6	Barbados Is.....	59	
			VK	Australia.....	5,555	8R	Guyana.....	8	
I	Italy.....	3,019	VK0	Heard & Macquarie Is, Antarctica.....	8				
IS	Sardinia.....	49	V01	Newfoundland.....	227	9G1	Ghana.....	50	
IT	Sicily.....	124	V02	Labrador.....	27	9H1	Malta.....	41	
			VP1	British Honduras.....	29	9I, 9J	Zambia.....	62	
JA, JH	Japan.....	10,957	VP2	Windward-Leeward Is.....	128	9K2	Kuwait.....	26	
JT1	Mongolia.....	2	VP5	Turks & Caicos Is.....	11	9L1	Sierra Leone.....	17	
JW	Svalbard Is.....	3	VP7	Bahama Is.....	45	9M2	Federation of Malaysia.....	76	
JX	Jan Mayen Is.....	1	VP8	Falkland, South Georgia, South Orkney, South Sandwich, South Shetland Is....	44	9M6	Sabah.....	10	
						9M8	Sarawak.....	19	
K, W	United States of America (48 states)...	288,326	VP9	Bermuda Is.....	44	9N1	Nepal.....	2	
KA	U. S. Personnel in Japan.....	84	VQ1	Zanzibar.....	2	9Q5	Republic of the Congo (Kinshasa).....	152	
KB6	Baker, Canton, Enderbury, Howland & Phoenix Is.....	13	VQ8	Chagos, Mauritius & Rodriguez Is.....	26	9U5	Burundi.....	13	
			VQ9	Seychelles Is.....	6	9V1	Singapore.....	61	
			VR1	British Phoenix, Ellice, Gilbert & Ocean Is.....	5	9X5	Rwanda.....	49	
						9Y4	Trinidad & Tobago Is.....	49	

\* From the Spring 1968 Radio Amateur Callbooks.

Absence of prefix and country indicates either that no licenses have been issued or have not been obtainable from official sources.



73

*Amateur Radio*



ANSWER THESE QUESTIONS AND RECEIVE YOUR JUST REWARD

- Which ham magazine has grown over 25% in the last six months?
- Which ham magazine features over 25 down-to-earth, easy-to-read and understand technical and construction articles by the best ham authors each month?
- Which ham magazine doesn't waste space on outdated operating news?
- Which ham magazine gives you W2NSD's inside information on what's really happening in amateur radio?
- Which ham magazine is readable, and lighthearted instead of stuffily old-fashioned?
- Which ham magazine waxes fatter and fatter each month?
- Which ham magazine gives you interesting reviews of all the new equipment?
- Which ham magazine gives you the latest technical developments?
- Which ham magazine costs only \$4 per year?

IF YOU CAN ANSWER ALL OF THE ABOVE QUESTIONS CORRECTLY\* YOU ARE ENTITLED TO A SUBSCRIPTION TO 73 AT THE SPECIAL REGULAR PRICE OF \$4 FOR 12 FASCINATING ISSUES!

Name \_\_\_\_\_ Call \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

\*If you don't know the answers you must not be familiar with 73. Send for a free sample.

**73 Magazine Peterborough, New Hampshire 03458**

DX OPERATING CODE

(For W/VE Amateurs)

Some amateur DXers have caused considerable confusion and QRM in their efforts to work DX stations. The points below, if observed by all W/VE amateurs, will help make DX more enjoyable for all.

1. Call DX only after he calls CQ, QRZ? or signs SK, or 'phone equivalents thereof. Make your calls short.
2. Do not call a DX station:
  - a. On the frequency of the station he is calling until you are sure the QSO is over (SK).
  - b. Because you hear someone else calling him.
  - c. When he signs KN, AR or CL.
  - d. Exactly on his frequency.
  - e. After he calls a directional CQ, unless of course you are in the right direction or area.
3. Keep within frequency band limits. Some DX stations can get away with working outside, but you cannot.
4. Observe calling instructions given by DX stations.  
Example: "15U" means "call 15 kc. up from my frequency".  
"15D" means down, etc.
5. Give honest reports. Many DX stations depend on W/VE reports for adjustment of station and equipment.
6. Keep your signal clean. Key clicks, ripple, feedback or splatter give you a bad reputation and may get you a citation from FCC.
7. Listen and call the station you want. Calling CQ DX is not the best assurance that the rare DX will reply.
8. When there are several W or VE stations waiting, avoid asking DX to "listen for a friend". Also avoid engaging him in a rag chew against his wishes.

(For Overseas Amateurs)

To all overseas amateur stations:

In their eagerness to work you, many W and VE amateurs resort to practices which cause confusion and QRM. Most of this is good-intentioned but ill-advised; some of it is intentional and selfish. The key to the cessation of unethical DX operating practices is in your hands. We believe that your adoption of certain operating habits will increase your enjoyment of amateur radio and that of amateurs on this side who are eager to work you. We recommend your adoption of the following principles:

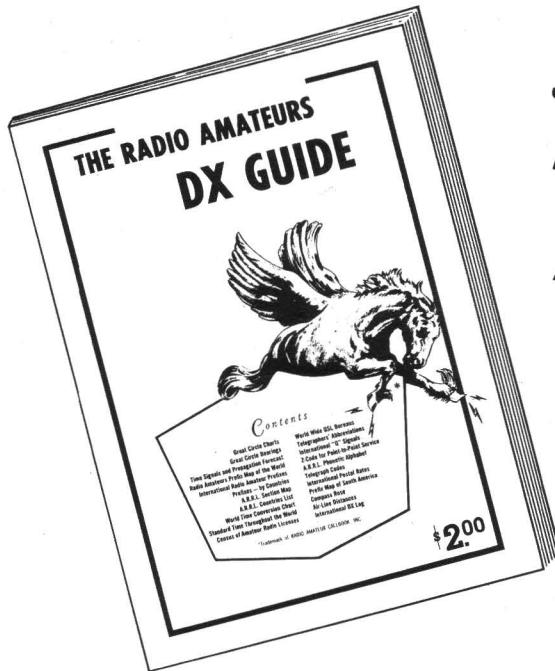
1. Do not answer calls on your own frequency.
2. Answer calls from W/VE stations only when their signals are of good quality.
3. Refuse to answer calls from other stations when you are already in contact with someone, and do not acknowledge calls from amateurs who indicate they wish to be "next".
4. Give everybody a break. When many W/VE amateurs are patiently and quietly waiting to work you, avoid complying with requests to "listen for a friend".
5. Tell listeners where to call you by indicating how many kilocycles up (U) or down (D) from your frequency you are listening. Examples: c.w. - "CQ DX CQ DX CQ DX 15U DE AC4YN AC4YN AC4YN 15U K"; 'phone - "Answer 15 kilocycles up from my frequency".
6. Use the ARRL-recommended ending signals, especially KN, to indicate to impatient listeners the status of the QSO. (KN means "Go ahead (specific station), all others keep out".
7. Let it be known that you avoid working amateurs who are constant violators of the above principles.

ARRL Communications Department

# GREAT CIRCLE BEARINGS IN THE UNITED STATES

	ATLANTA, GA.	BIRMINGHAM, ALA.	BISMARCK, N. D.	BOSTON, MASS.	BUFFALO, N. Y.	CHARLESTON, W. VA.	CHEYENNE, WYO.	CHICAGO, ILL.	CLEVELAND, OHIO	COLUMBIA, S. C.	DALLAS, TEXAS	DENVER, COLORADO	DES MOINES, IOWA	DETROIT, MICH.	EL PASO, TEXAS	HELENA, MONTANA	HOUSTON, TEXAS	INDIANAPOLIS, IND.	JACKSONVILLE, FLA.	KANSAS CITY, MO.	LITTLE ROCK, ARK.	LOS ANGELES, CALIF.	LOUISVILLE, KY.	MIAMI, FLORIDA	MILWAUKEE, WIS.	MINNEAPOLIS, MINN.	NASHVILLE, TENN.	NEW ORLEANS, LA.	NEW YORK, N. Y.	NORFOLK, VA.	PHILADELPHIA, PA.	PHOENIX, ARIZONA	PITTSBURGH, PA.	ST. LOUIS, MO.	SALT LAKE CITY, UTAH	SAN FRANCISCO, CALIF.	SEATTLE, WASHINGTON	WASHINGTON, D. C.	WILMINGTON, N. C.
ATLANTA, GA.		264	322	47	24	25	301	343	15	86	269	297	320	7	271	310	251	347	145	306	281	281	347	154	345	331	321	234	48	64	48	278	27	318	296	289	308	48	84
BIRMINGHAM, ALA.	82		326	50	31	40	304	356	26	84	268	299	328	17	270	312	246	5	125	314	287	281	10	142	355	338	0	219	52	67	53	278	37	333	298	290	309	53	83
BISMARCK, N. D.	132	137		92	97	115	209	114	105	124	167	205	133	104	198	273	165	119	132	148	150	233	123	135	109	108	131	151	99	111	102	217	106	134	237	249	282	107	119
BOSTON, MASS.	236	241	291		277	247	278	273	267	226	254	275	275	274	262	293	246	263	220	268	253	273	256	207	278	286	249	237	235	219	233	268	258	262	280	280	295	236	217
BUFFALO, N. Y.	208	217	291	92		206	273	264	237	192	241	269	268	261	252	290	231	243	191	258	237	267	231	184	274	286	225	219	118	160	134	261	199	248	276	276	293	159	174
CHARLESTON, W. VA.	208	223	307	61	24		287	309	359	174	251	282	293	345	260	300	238	293	180	279	251	274	270	174	316	311	245	223	66	108	71	269	31	275	286	282	301	80	143
CHEYENNE, WYO.	108	112	26	76	76	91		81	81	103	140	187	83	79	189	319	143	90	113	101	119	241	95	119	76	62	104	128	81	92	83	219	84	98	268	262	303	87	100
CHICAGO, ILL.	161	175	302	82	78	125	272		93	144	221	266	268	80	242	293	210	151	155	245	208	262	157	156	350	308	173	190	91	116	97	254	101	212	274	272	295	106	131
CLEVELAND, OHIO	197	209	297	80	55	179	277	277		176	240	272	275	310	252	293	228	245	180	261	235	268	226	175	290	296	219	214	95	136	105	262	127	250	278	277	296	124	156
COLUMBIA, S. C.	268	267	317	41	10	354	299	329	356		270	295	311	350	271	308	256	326	189	300	279	282	320	174	331	323	297	246	39	53	37	279	7	305	295	290	307	33	85
DALLAS, TEXAS	81	82	349	57	49	61	325	36	50	80		319	15	45	266	325	157	47	97	15	61	280	55	112	32	11	65	115	60	71	61	277	55	40	308	291	315	63	80
DENVER, COLORADO	103	107	22	73	72	87	6	75	77	99	134		74	74	189	325	138	84	109	91	112	246	90	116	70	55	98	124	78	88	80	224	80	91	283	267	308	83	96
DES MOINES, IOWA	134	144	318	80	78	105	271	84	87	123	197	262		81	231	297	187	105	135	197	171	257	116	141	69	5	133	165	87	104	91	247	92	137	273	270	296	97	115
DETROIT, MICH.	188	200	295	86	79	164	273	263	129	168	233	268	268		248	291	222	224	174	254	227	265	208	171	282	292	206	207	100	133	109	258	128	238	275	274	294	124	151
EL PASO, TEXAS	77	78	14	58	54	64	8	50	56	76	79	8	42	53		345	98	57	86	48	71	285	62	97	46	33	68	92	61	69	62	290	59	57	335	298	327	64	75
HELENA, MONTANA	112	116	85	84	88	100	133	97	93	108	134	141	105	92	162		136	101	115	115	122	203	105	119	94	91	111	127	89	98	92	180	94	109	179	224	283	95	104
HOUSTON, TEXAS	64	60	348	50	40	49	329	25	39	67	338	325	6	34	285	327		34	84	3	26	288	40	103	22	5	46	86	52	60	53	289	45	24	314	297	319	5	68
INDIANAPOLIS, IND.	166	185	308	72	58	110	281	332	62	143	234	276	290	41	250	298	220		157	267	226	267	168	158	338	316	188	199	80	107	85	261	80	251	281	277	298	94	127
JACKSONVILLE, FLA.	327	309	324	33	9	1	308	339	0	8	286	304	323	355	282	314	273	340		314	300	288	338	163	341	332	326	271	29	34	28	287	8	323	303	295	312	23	39
KANSAS CITY, MO.	120	129	332	72	67	90	288	60	73	111	196	278	15	66	236	306	184	82	126		157	262	95	134	50	9	113	157	78	93	81	253	79	97	282	275	302	85	105
LITTLE ROCK, ARK.	97	104	335	59	48	65	307	26	48	92	243	300	352	41	260	315	208	43	114	338		276	55	128	21	356	71	158	62	76	64	271	56	22	297	286	309	67	89
LOS ANGELES, CALIF.	81	82	41	62	61	70	52	62	65	79	88	57	60	62	100	19	96	67	87	67	81		70	94	59	52	76	92	65	71	66	95	67	69	35	319	348	68	78
LOUISVILLE, KY.	166	190	313	66	47	87	287	339	43	137	242	282	301	26	256	302	227	348	156	280	239	271		158	342	322	202	205	71	98	75	266	63	278	285	281	301	82	120
MIAMI, FLORIDA	337	326	329	22	3	355	313	342	356	355	302	310	329	353	291	318	290	342	345	321	315	293	341		342	335	334	298	18	16	15	293	1	330	308	299	315	11	13
MILWAUKEE, WIS.	162	175	297	87	88	132	267	170	107	147	218	261	253	99	239	290	207	157	156	235	204	259	160	157		298	172	188	98	121	103	251	111	203	271	270	293	113	135
MINNEAPOLIS, MINN.	145	154	291	91	96	123	248	125	108	135	193	242	184	105	227	283	186	132	144	189	175	248	137	146	114		148	169	99	116	104	237	110	159	259	261	287	111	127
NASHVILLE, TENN.	140	180	320	59	40	61	295	354	36	114	251	290	318	24	261	307	231	8	142	298	254	275	22	150	353	333		205	63	83	65	271	50	313	291	285	305	68	103
NEW ORLEANS, LA.	50	37	337	46	32	38	318	9	28	60	299	313	347	22	283	321	270	17	86	339	339	288	22	114	7	351	23		46	56	47	287	35	359	308	296	315	47	64
NEW YORK, N. Y.	233	240	296	54	303	251	281	281	280	223	255	278	280	286	262	294	244	269	213	271	253	274	259	202	287	293	251	237		205	229	269	269	266	283	282	297	235	208
NORFOLK, VA.	249	253	306	35	342	291	290	303	319	236	264	286	295	318	268	301	253	294	217	285	267	279	284	198	308	307	269	244	25		16	274	322	284	289	286	302	343	208
PHILADELPHIA, PA.	233	240	298	52	317	255	283	285	289	221	255	279	283	294	263	296	246	273	212	273	255	275	263	199	292	296	252	235	49	197		270	279	269	284	282	298	235	203
PHOENIX, ARIZONA	80	83	29	61	59	69	35	58	62	79	89	40	55	59	108	0	100	64	89	62	80	277	70	97	55	45	74	93	64	72	66		64	66	1	300	334	68	79
PITTSBURGH, PA.	210	221	300	72	18	213	280	286	308	188	246	276	281	310	257	295	235	264	189	268	244	271	246	181	296	299	234	222	85	140	96	265		261	281	279	297	123	165
ST. LOUIS, MO.	134	150	320	70	60	90	287	30	63	119	224	280	319	53	248	303	207	68	137	280	204	267	94	143	20	342	130	179	75	95	79	260	74		284	278	301	84	110
SALT LAKE CITY, UTAH	99	101	50	73	74	86	83	79	78	95	118	98	80	76	152	359	123	84	103	91	104	220	88	109	75	67	95	114	78	86	80	181	80	90		254	315	83	92
SAN FRANCISCO, CALIF.	86	86	54	66	67	75	70	70	70	83	96	75	70	68	109	39	101	73	90	77	88	136	77	96	67	62	81	97	69	76	71	114	71	77	66		1	73	81
SEATTLE, WASHINGTON	103	105	87	81	84	94	111	92	89	100	118	116	97	88	136	96	120	95	105	103	109	165	97	109	90	88	102	114	85	92	87	147	89	100	128	181		90	97
WASHINGTON, D. C.	233	240	302	52	342	263	285	293	307	215	256	281	287	308	263	298	245	280	205	277	257	275	268	192	300	302	254	235	53	163	53	270	305	273	285	283	300		189
WILMINGTON, N. C.	267	267	313	32	355	32																																	





**9th  
EDITION!**

**ADD TO YOUR DXing Pleasure!**

# RADIO AMATEURS DX GUIDE

**\$2.00**  
Postpaid

64 pages, size 8 3/4" x 12"

The DX Guide is a handy reference manual containing valuable information for every radio amateur — especially the DXers.

## JUST LOOK AT THIS TABLE OF CONTENTS

**INTERNATIONAL DX LOG** — prefixes of all countries that qualify for DXCC. Ample space provided to make a permanent record of all DX stations worked; showing date, call letters, frequency and whether a QSL card has been sent or received.

**WORLD MAP SHOWING RADIO AMATEUR PREFIXES** — an outstanding map, 15" x 10".

**GREAT CIRCLE MAPS** — centered on New York City, San Francisco, Calif., Seattle, Wash., Washington, D.C., and the center of the United States.

**GREAT CIRCLE OUTLINE CHART OF THE UNITED STATES** — determine the great circle bearing between any two points in the United States with this map.

**PREFIX MAP OF SOUTH AMERICA** — showing the number or letter designating all sections and countries.

**ARRL SECTION MAP** — of the U.S., check off the sections you have worked during ARRL contests.

**GREAT CIRCLE BEARING TABLES** — each printed on a separate page for easy removal of the one nearest your location. 293 bearings are shown to the nearest degree on each table for: Atlanta, Ga., Boston, Mass., Buffalo, N.Y., Chicago, Ill., Columbus, Ohio, Denver, Colo., Detroit, Mich., Houston, Texas, Jacksonville, Fla., Kansas City, Mo., Knoxville, Tenn., Los Angeles, Calif., Louisville, Ky., Miami, Fla., Minneapolis, Minn., New Orleans, La., New York City, Norfolk, Va., San Francisco, Calif., Seattle, Wash., Washington, D.C., and the geographical center of the United States.

**GREAT CIRCLE BEARINGS IN THE UNITED STATES** — between 39 large cities in the U.S.A., — a valuable aid for VHF work as well as handling traffic through QRM.

**GREAT CIRCLE BEARINGS TO WORLD WIDE METROPOLITAN AREAS** — exact bearings to the nearest degree from 39

cities in the U.S.A., to 39 metropolitan areas throughout the world.

**TIME CONVERSION TABLE** — determine the time in any time zone in the world. Also know whether it is today or tomorrow at the place heard or worked.

**TIME THROUGHOUT THE WORLD** — time zones of most countries. Explains the International Time Zone System.

**AIR LINE DISTANCES IN THE UNITED STATES** — arranged in alphabetical order between 39 cities of the United States.

**POSTAL INFORMATION** — rates for QSL cards, first class and airmail letters to foreign countries. Also the number of international reply coupons for the proper postage for a return airmail letter is shown for most countries.

**ARRL COUNTRIES LIST** — official list of ARRL DX contest and DXCC. Courtesy ARRL.

**DX CONTEST AND FIELD DAY LOG** — can be used either for a DX contest or the annual ARRL field day.

**COMPASS ROSE** — for that rotary beam indicator, graduated for 360 degrees. One with white background and no print on the reverse side of the sheet. The other has a black background.

**PLUS THESE INTERESTING FEATURES** — INTERNATIONAL "Q" SIGNALS; WORLD WIDE QSL BUREAU; "Z" CODE FOR POINT TO POINT SERVICE; "Q" SIGNALS AND ARRL PHONETIC ALPHABET; TELEGRAPHERS ABBREVIATIONS; DX OPERATING CODE; MORSE CODE.

**NATIONAL BUREAU OF STANDARDS PROPAGATION FORECAST SERVICES AND TIME SIGNALS; CENSUS OF RADIO AMATEURS THROUGHOUT THE WORLD; RADIO AMATEUR PREFIXES ALPHABETICALLY BY PREFIX AND BY COUNTRY!**

SEE YOUR FAVORITE  
ELECTRONICS DEALER FOR  
THE LATEST ISSUE OR  
ORDER DIRECT FROM THE  
PUBLISHER USING HANDY  
ORDER FORM BELOW.



PUBLISHED BY

**Radio  
Amateur**

**callbook**

4844 W. FULLERTON AVE.  
CHICAGO, ILLINOIS 60639

HANDY ORDER FORM — please print clearly to avoid error

**MAIL TO...**

**RADIO AMATEUR CALLBOOK, INC.**

4844 Fullerton Avenue, Chicago, Ill. 60639

Name \_\_\_\_\_ Call letters \_\_\_\_\_

Address \_\_\_\_\_ Amount Enclosed \$ \_\_\_\_\_

City & State \_\_\_\_\_ Zip Code \_\_\_\_\_

Check here for a free copy of your Radio Amateur  
Callbook Products catalog ☐

Enclosed is my check/M.O. in the amount of \$ \_\_\_\_\_ for \_\_\_\_\_ copy/s of the  
Radio Amateurs DX Guide.

ILLINOIS RESIDENTS ONLY ADD 5% SALES TAX.

# GET ALL THESE EXTRA FEATURES IN THE RADIO AMATEUR **callbooks**

- International Radio Amateur Prefixes!
- Radio Amateur Prefixes by Countries!
- A.R.R.L. Phonetic Alphabet!
- QSL Managers Around the World!
- Telegraph Codes!
- Census of Radio Amateurs throughout the world!
- Radio Amateurs' License Class!
- Great Circle Bearings!
- Great Circle Charts!
- International "Q" and "Z" Signals!
- World Standard Time Charts!
- International Postal Information!
- World Prefix Map!
- F.C.C. Examination Points!
- Where To Buy!
- Telegraphers' Abbreviations!
- DX Operating Code!
- A.R.R.L. Countries List!
- At Your Service — Amateur Radio Dealers!
- Many other features!

The Radio Amateur CALLBOOK — in 2 volumes . . . the United States CALLBOOK listing licensed radio amateurs in the 50 United States, its Possessions plus personnel in foreign countries. The Foreign CALLBOOK listing over 225 Countries outside the U.S.A.

Both volumes published quarterly;  
Spring issue on sale after March 1st.  
Summer issue on sale after June 1st.  
Fall issue on sale after September 1st.  
Winter issue on sale after December 1st.

## UNITED STATES CALLBOOK (all K & W calls)

The United States CALLBOOK lists over 283,000 radio amateurs in the 50 United States, its Possessions and personnel in foreign countries. Over 30,000 changes, including many thousand new licenses, are made in each issue.

\$6.95 plus 25¢ for mailing in U.S.A., Possessions and Canada.  
Elsewhere add 50¢ for mailing.

Subscription, any 4 issues, postpaid:  
\$24.00 in U.S.A., Possessions and Canada. Elsewhere, \$25.00

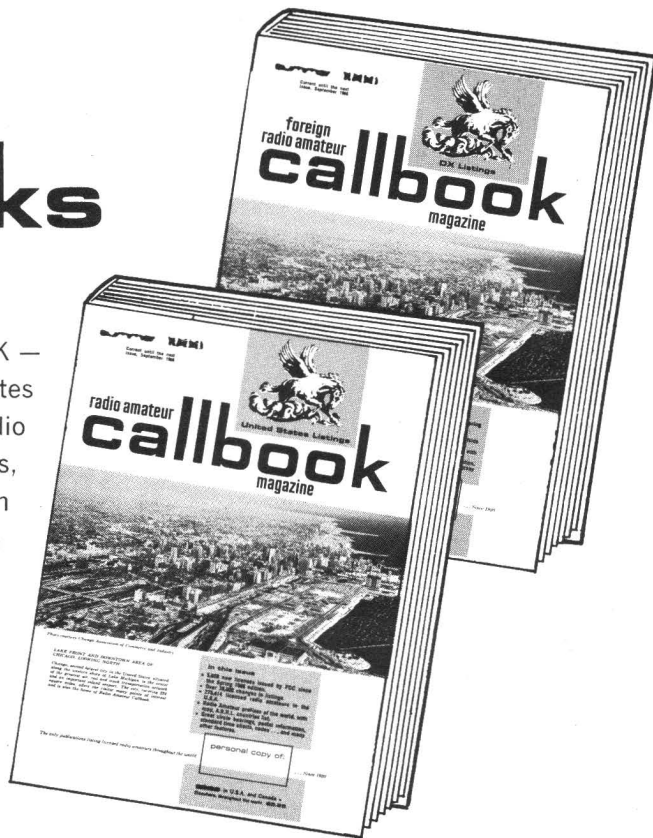
## FOREIGN CALLBOOK

(Amateurs in all countries outside of the U.S.)

The Foreign CALLBOOK lists over 135,000 radio amateurs in all countries (including Hawaii) outside the United States. Each issue has thousands of new licenses and changes, gathered from every Country of the world. Essential reference for DXers.

\$4.95 plus 25¢ for mailing in U.S.A., Possessions and Canada.  
Elsewhere, add 50¢ for mailing.

Subscription, any 4 issues, postpaid:  
\$16.00 in U.S.A., Possessions and Canada. Elsewhere, \$17.00



HANDY ORDER FORM—please print clearly to avoid error

MAIL TO... RADIO AMATEUR CALLBOOK, INC. 3-68

4844 Fullerton Avenue, Chicago, Ill. 60639

Name \_\_\_\_\_ Call letters \_\_\_\_\_

Address \_\_\_\_\_ Amount Enclosed \$ \_\_\_\_\_

ILLINOIS RESIDENTS ADD 5% SALES TAX.

City & State \_\_\_\_\_ Zip Code \_\_\_\_\_

### UNITED STATES CALLBOOK (all K & W calls)

- ☐ Single copy ..... \$6.95 (plus 25c for mailing in U.S.A., Possessions and Canada). Elsewhere add 50c for mailing.

Current edition will be sent unless you specify a future one: Send \_\_\_\_\_ ISSUE.

- ☐ Subscription (4 issues), in U.S.A., Possessions, and Canada Postpaid ..... \$24.00  
Elsewhere Postpaid ..... \$25.00

19 _____	19 _____	19 _____	19 _____
( ) Spring	( ) Spring	( ) Spring	( ) Spring
( ) Summer	( ) Summer	( ) Summer	( ) Summer
( ) Fall	( ) Fall	( ) Fall	( ) Fall
( ) Winter	( ) Winter	( ) Winter	( ) Winter

### FOREIGN CALLBOOK (Amateurs in all countries outside of the U.S.)

- ☐ Single copy ..... \$4.95 (plus 25c for mailing, in U.S.A., Possessions and Canada). Elsewhere add 50c for mailing.

Current edition will be sent unless you specify a future one: Send \_\_\_\_\_ ISSUE.

- ☐ Subscription (4 issues), in U.S.A., Possessions, and Canada Postpaid ..... \$16.00  
Elsewhere Postpaid ..... \$17.00

19 _____	19 _____	19 _____	19 _____
( ) Spring	( ) Spring	( ) Spring	( ) Spring
( ) Summer	( ) Summer	( ) Summer	( ) Summer
( ) Fall	( ) Fall	( ) Fall	( ) Fall
( ) Winter	( ) Winter	( ) Winter	( ) Winter

Please allow at least 10 days for delivery. Prices are subject to change without notice.

SEE YOUR FAVORITE  
ELECTRONICS DEALER FOR  
THE LATEST ISSUE OR  
ORDER DIRECT FROM THE  
PUBLISHER USING THIS  
HANDY ORDER FORM.



PUBLISHED BY

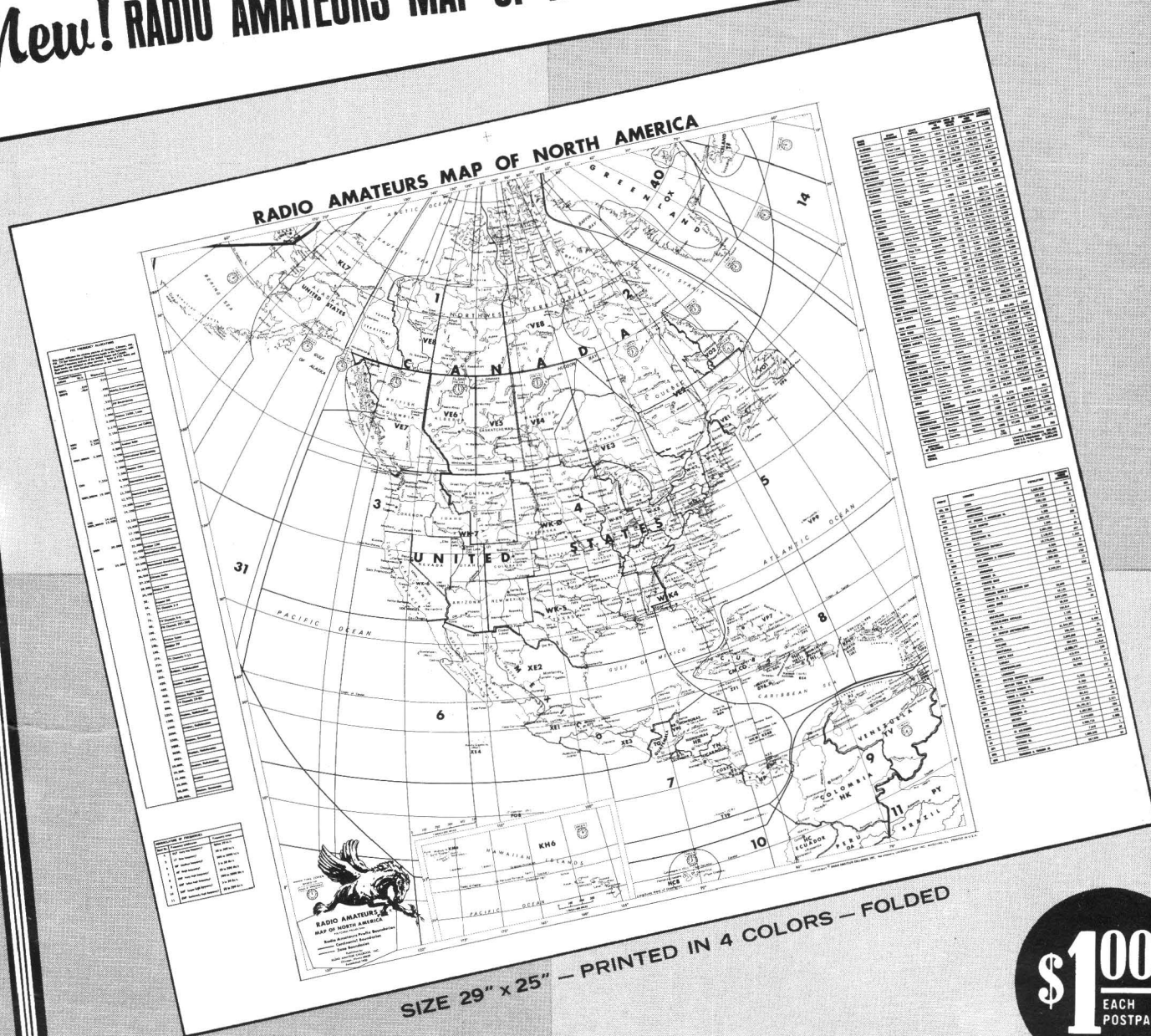
Radio  
Amateur

**callbook**

4844 W. FULLERTON AVE.  
CHICAGO, ILLINOIS 60639



# New! RADIO AMATEURS MAP OF NORTH AMERICA!



A new, modern map of North America, includes Hawaii, Central America and the Caribbean area to the equator, showing call areas, zone boundaries, prefixes and time zones, plus informative facts on each of the 50 States and census of radio amateurs in area covered by this map; plus FCC Frequency Allocation Chart. All important cities shown. Polyconic projection—scale in miles.

**\$100**  
EACH  
POSTPAID

**ORDER YOUR  
COPY TODAY!**

At your favorite radio parts  
dealer or mail this coupon to:

**THE RADIO AMATEUR  
callbook** 4844 W. FULLERTON AVE.  
CHICAGO 39, ILLINOIS

**RADIO AMATEUR CALLBOOK, Inc.**

4844 W. FULLERTON AVE. CHICAGO, ILLINOIS 60639

3-68

Enclosed is my check/money order for \$\_\_\_\_\_ covering \_\_\_\_\_  
Radio Amateurs Map of North America, folded

NAME \_\_\_\_\_ CALL LETTERS \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP CODE \_\_\_\_\_

ILLINOIS RESIDENTS ONLY ADD 5% SALES TAX.

# RADIO AMATEURS GREAT CIRCLE CHART OF THE WORLD

## FROM THE GEOGRAPHICAL CENTER

## OF THE UNITED STATES

Great Circle Bearings, in degrees,  
on 6 major U.S. cities!

SAN FRANCISCO!

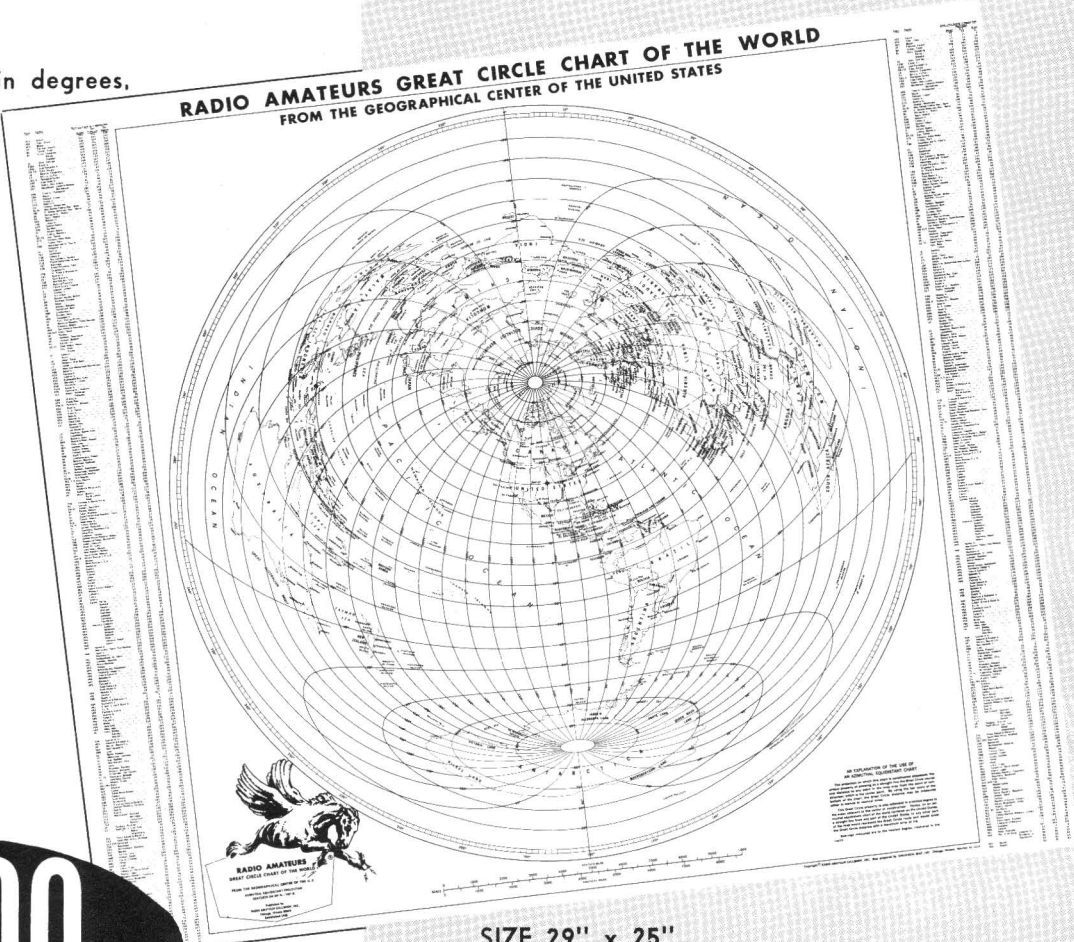
LOS ANGELES!

SEATTLE!

MIAMI!

BOSTON!

WASHINGTON, D.C.!



ONLY \$100  
EACH POSTPAID

SIZE 29" x 25"  
PRINTED IN 4 BEAUTIFUL COLORS  
SCALE IN STATUTE & NAUTICAL MILES

This Azimuthal equidistant chart of the world shows major cities throughout the world, latitudes and longitudes at 10 degree intervals, plus bearings of 288 world points from 6 major U.S. cities. A very useful map for DX'rs in any part of the United States.

ORDER TODAY!

**RADIO AMATEUR CALLBOOK, Inc.**  
4844 W. FULLERTON AVE. CHICAGO, ILLINOIS 60639

Please send me:  
Quantity

Radio Amateurs Great Circle Chart/s of the World.....\$1.00

Call letters\_\_\_\_\_ Amount Enclosed..... \$

Name\_\_\_\_\_

Address\_\_\_\_\_

City\_\_\_\_\_ State\_\_\_\_\_ Zip Code\_\_\_\_\_

ILLINOIS RESIDENTS ONLY ADD 5% SALES TAX.

From your favorite radio parts  
distributor or Mail this handy  
order blank to:

**Radio  
Amateur  
callbook**  
4844 W. FULLERTON AVE.  
CHICAGO, ILLINOIS 60639



# HERE'S YOUR PASSPORT TO THE WORLD OF AMATEUR RADIO!

set  
of

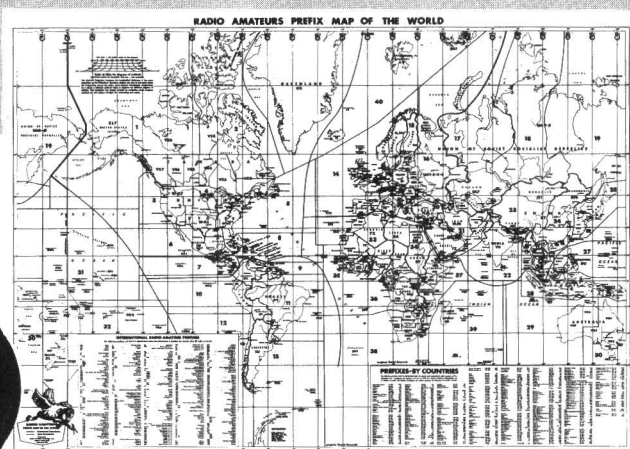
# 3

Terrific maps for all radio amateurs. Printed in 4 beautiful colors on heavy, durable paper. Each map contains important information needed by every radio amateur and SWL. Keep up to date with news of the world as it develops.

**ORDER YOUR  
SET TODAY**

**PREFIX MAP OF  
THE WORLD**

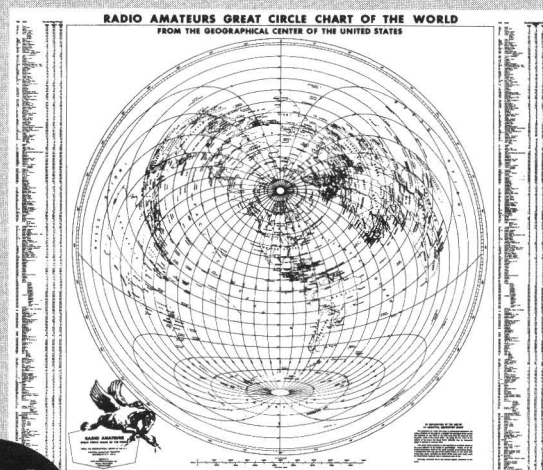
Size 40" x 28"  
Four colors



**\$1<sup>00</sup>**  
EACH  
POSTPAID

**GREAT CIRCLE CHART  
OF THE WORLD**

Size 29" x 25"  
Four colors



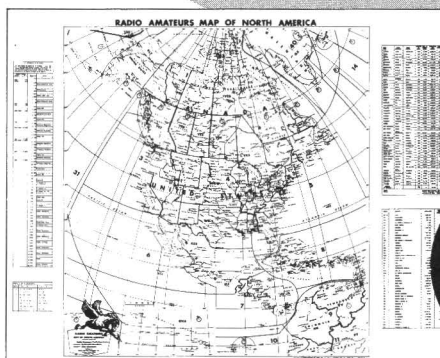
**\$1<sup>00</sup>**  
EACH  
POSTPAID

**RADIO AMATEURS GREAT CIRCLE CHART OF THE WORLD** — from the geographical center of the United States! Azimuthal equidistant chart of the world, showing major cities, latitude and longitude around the world, plus great circle bearings, in degrees on 6 major U. S. cities—Boston, Washington, D.C., Miami, Seattle, San Francisco and Los Angeles. Scale in statute and nautical miles.

**RADIO AMATEURS PREFIX MAP OF THE WORLD!** Mercator projection of the world, with prefix shown on each Country plus capitals and major cities. Also DX zones and continental boundaries, time zones throughout the world, prefixes and countries listed alphabetically for quick cross reference with continent and DX zones.

**MAP OF NORTH  
AMERICA**

**RADIO AMATEURS MAP OF NORTH AMERICA!** Includes Central America and the Caribbean to the equator. Polyconic projection, showing call areas, zone boundaries, prefixes and time zones.



Size 29" x 25"  
Four colors

**\$1<sup>00</sup>**  
EACH  
POSTPAID

**ORDER ALL 3 MAPS AND GET THE RADIO AMATEURS WORLD ATLAS FREE!**

See description of Atlas on next page.

**ORDER YOUR RADIO  
AMATEUR MAPS TODAY**

From your favorite radio parts distributor or  
Mail this handy order blank to:

**Radio  
Amateur  
callbook**

4844 W. FULLERTON AVE.  
CHICAGO, ILLINOIS 60639

MAIL TO ....

**RADIO AMATEUR CALLBOOK, Inc.**

4844 West Fullerton Ave. Chicago, Illinois 60639

Please send me:

Quantity	Each	Total
_____ The Radio Amateurs Prefix Map of the World.....	\$1.00	_____
_____ The Radio Amateurs Great Circle Chart of the World.....	\$1.00	_____
_____ The Radio Amateurs Map of North America.....	\$1.00	_____
_____ All 3 maps plus Free Radio Amateurs World Atlas.....	\$3.00	_____

Call letters \_\_\_\_\_ Amount Enclosed \_\_\_\_\_ \$ \_\_\_\_\_

ILLINOIS RESIDENTS ONLY ADD 5% SALES TAX.

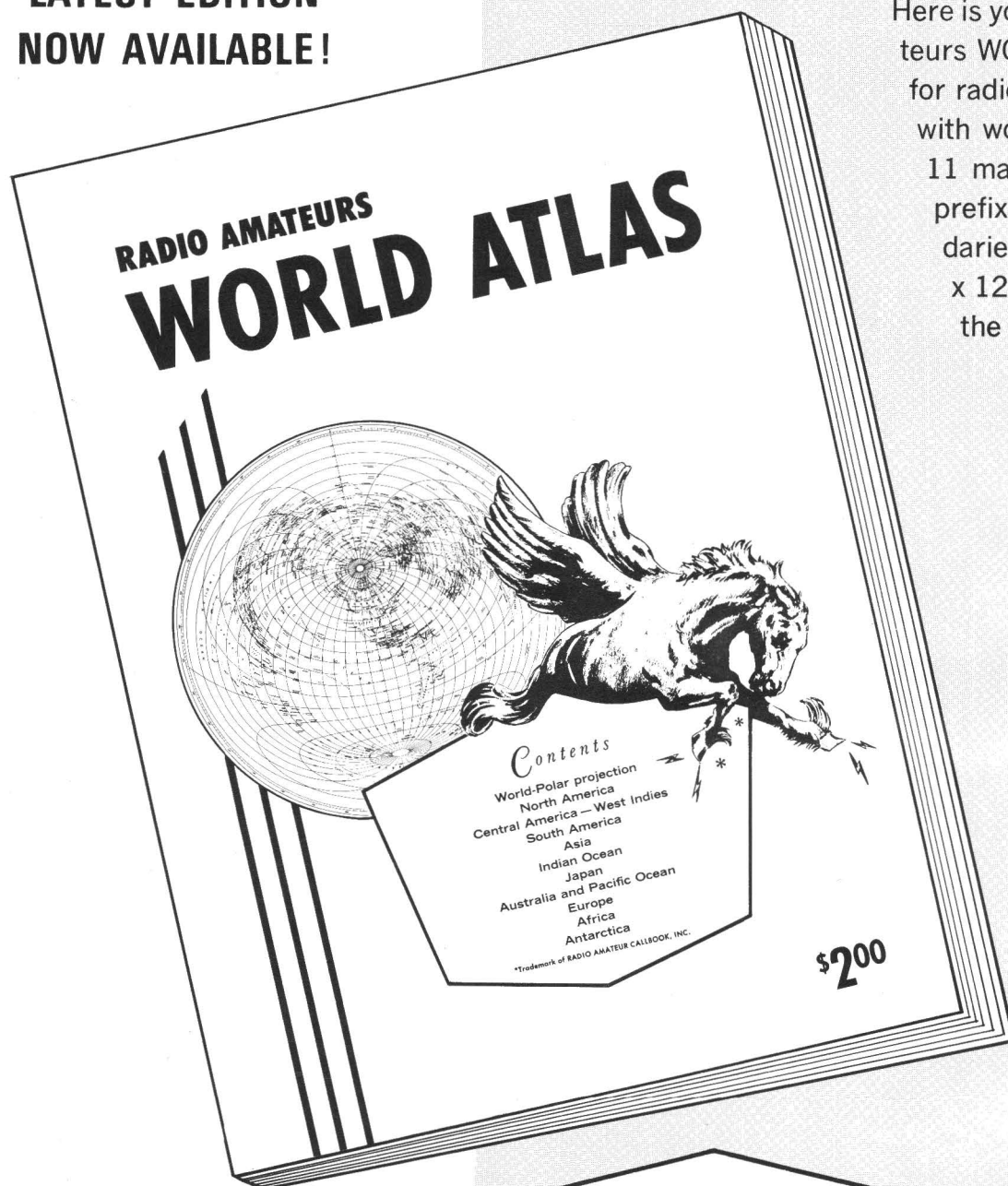
Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_

# RADIO AMATEURS WORLD ATLAS!

**LATEST EDITION  
NOW AVAILABLE!**



The favorite reference for DX'rs.

**\$200**  
EACH  
POSTPAID

Here is your new edition of the Radio Amateurs WORLD ATLAS prepared especially for radio amateurs. Each page is packed with world wide information. There are 11 maps, printed in 4 colors, showing prefixes on each country, zone boundaries on each map. A convenient 8 $\frac{3}{4}$ " x 12" size — 20 pages, ideal size for the ham shack or use on field trips.

**All six continents of the world including . . .**

- North America!
- South America!
- Central America—West Indies!
- Asia!
- Indian Ocean!
- Japan!
- Australia & Pacific Ocean!
- Europe!
- Africa!
- Antarctica!
- World-Polar projection!

**ORDER YOUR RADIO AMATEURS  
WORLD ATLAS TODAY FROM  
YOUR FAVORITE ELECTRONICS  
DEALER or mail this handy order  
blank to:**

**RADIO AMATEUR CALLBOOK, Inc.**  
4844 W. FULLERTON AVE., CHICAGO, ILLINOIS 60639

3-68

Enclosed is my check/money order for \$\_\_\_\_\_ covering \_\_\_\_\_  
Radio Amateurs World Atlas/es. ILLINOIS RESIDENTS ONLY ADD 5% SALES TAX

Please send to:

NAME \_\_\_\_\_ CALL LETTERS \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP CODE \_\_\_\_\_

Name & Address of your favorite electronics dealer: \_\_\_\_\_

**Radio  
Amateur  
callbook**

4844 W. FULLERTON AVE.  
CHICAGO, ILLINOIS 60639



# ENGRAVED NAMEPLATES

## FOR YOUR DESK, DOOR, RIG AND YOU!

Your name and call letters, or office title, engraved on any one of these attractive, modern design, duo-color, laminated phenolic nameplates. An efficient, thoughtful and important item for your home or office.

### FOR YOUR DESK

Select the satin smooth, walnut grained or jet black nameplate with white letters (up to 20 letters and numbers per line), mounted in satin gold or silver finish, anodized aluminum holder. Two sizes as illustrated above.

### FOR YOUR DOOR or rig

Nameplates in three sizes for your door or rig in walnut grained or jet black, with white letters. Up to 18 letters per line on the 1" x 4" plate. Up to 20 letters on the others. Each with special adhesive back for immediate installation. No tools needed.

### EXECUTIVE DESK SET

Handsome desk set with either jet black or walnut grained nameplate (white letters), mounted in satin gold or silver anodized aluminum holder. Up to 20 letters per line. Two standard ball point pens included. Rear compartment for business cards, pads, etc.

BARBARA

W9XYZ

**LAPEL PIN (with safety catch)**

Your name and/or call letters engraved on a duo-color plastic pin. Size 1/2" x 2". Available in white letters on black, blue or red background. Also black letters on white background. Up to 12 letters—1 line only.

\$1.25

*Illustrated one-half size*

**Barby's** INC

4842 Fullerton Ave.,  
Chicago, Illinois 60639

**SATISFACTION GUARANTEED  
OR YOUR MONEY BACK**

**MAIL ORDERS  
PROMPTLY FILLED**

#### ENGRAVED

1 Line      2 Lines

\$2.75 \$3.25  
\$3.75 \$4.25

\$1.75 \$2.25  
\$1.75 \$2.25  
\$2.25 \$2.75

\$5.75 \$6.25

Shipments to U.S.A., Possessions and Canada are postpaid. Elsewhere add \$1.00 registration and handling via surface mail; \$2.00 for airmail.

W9XYZ  
MARGARET R. WHITE

JAMES J. HARRIS W9XYZ

RICHARD BLACK W9XYZ  
MANAGER

AMATEUR RADIO W9XYZ  
DONALD R. SMITH

W9XYZ  
MARGARET R. WHITE

MR. & MRS.  
ROBERT WILLIAMS

ANY WORDING YOU WANT  
ON ANY NAMEPLATE

ROBERT E. HARRISON  
PRESIDENT

ILLUSTRATIONS  
1/4 ACTUAL SIZE

### HANDY ORDER FORM FOR ENGRAVED NAMEPLATES

SEND ORDER TO BARBY'S, INC., 4842 FULLERTON AVENUE, CHICAGO, ILL. 60639

PRINT wording just as it is to appear on your nameplate or pin

Total Amount \$

ILLINOIS RESIDENTS ONLY  
ADD 5% SALES TAX.

Amount Enclosed \$

Kind of Nameplate	Color of Nameplate	Line Arrangement. Check one if 2 lines	Size	Color of Holder if Desk or Exec. Set
<input type="checkbox"/> Desk	<input type="checkbox"/> Walnut Grained <input type="checkbox"/> Jet Black	<input type="checkbox"/> All letters same size <input type="checkbox"/> Large letters over small <input type="checkbox"/> Small letters over large	<input type="checkbox"/> 1"x7" <input type="checkbox"/> 2"x8"	<input type="checkbox"/> Gold <input type="checkbox"/> Silver
<input type="checkbox"/> Door or rig	<input type="checkbox"/> Walnut Grained <input type="checkbox"/> Jet Black	<input type="checkbox"/> All letters same size <input type="checkbox"/> Large letters over small <input type="checkbox"/> Small letters over large	<input type="checkbox"/> 1"x4" <input type="checkbox"/> 1"x7" <input type="checkbox"/> 2"x8"	
<input type="checkbox"/> Exec. Desk Set	<input type="checkbox"/> Walnut Grained <input type="checkbox"/> Jet Black	<input type="checkbox"/> All letters same size <input type="checkbox"/> Large letters over small <input type="checkbox"/> Small letters over large		<input type="checkbox"/> Gold <input type="checkbox"/> Silver
<input type="checkbox"/> Lapel Pin	<input type="checkbox"/> Jet Black <input type="checkbox"/> White <input type="checkbox"/> Red <input type="checkbox"/> Blue			

Ship to:

Address:

City: State: Zip Code:

THANK YOU FOR YOUR ORDER

# Exclusive!

## RADIO AMATEUR EMBLEMS

### ENGRAVED WITH YOUR CALL LETTERS



*Lapel Pin*  
with clutch back.

(May also be used as a tie-tac.)

Item 1-G, 20K gold plated  
Item 1-R, Rhodium plated Each.....\$5.00

★ *Tie Bar*



Item 2-G, 20K gold plated  
Item 2-R, Rhodium plated Each .....\$5.00



★ *Ladies Pin*  
(with safety catch)

Item 3-G, 20K gold plated  
Item 3-R, Rhodium plated Each .....\$5.00

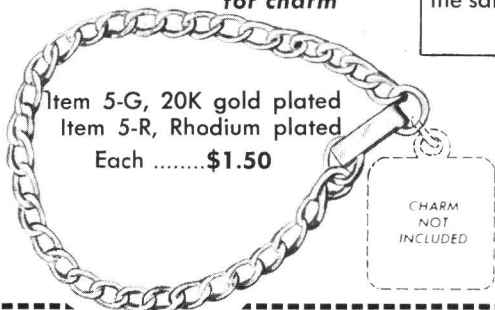
★ *Charm*

Item 4-G, 20K gold plated  
Item 4-R, Rhodium plated  
Each .....\$5.00



*Bracelet*

for charm



Item 5-G, 20K gold plated  
Item 5-R, Rhodium plated  
Each .....\$1.50

★

Order any two emblems  
of your choice at  
the same time.....\$8.00



for charm

Item 6-G, 20K gold plated  
Item 6-R, Rhodium plated  
Each .....\$1.50

*I am Pegasus*

.... according to legend,  
winged and with blazing hoofs,  
mane flying, crossed the heavens with such speed I caused the  
crash of lightning and the roar of thunder.

Of course, this is a myth, but what an exciting thought—to  
race across the heavens with the speed legend gave me.  
Naturally it's really impossible for me to have accomplished  
such a feat but not for you ... a radio amateur.

You can reach the corners of the world ... with a turn of a  
knob you can cross the heavens—the whole world is yours  
... adventure is yours.

We have much in common—my legend of adventure—your  
history of adventure, as part of amateur radio.

We join our past, present and future here, in this emblem.

A brand new, modern design, emblem for radio amateurs to display  
their own call letters. A truly beautiful emblem you will be proud  
to wear.

Each piece will be engraved with your call letters—to make it your very  
own. The quality and workmanship is guaranteed.

Make your selection now—and wear your emblem proudly—you've  
earned it.

## Handy Order Form for Radio Amateur Emblems

MAIL TO RADIO AMATEUR CALLBOOK, 4844 FULLERTON AVE., CHICAGO, ILL. 60639

Item No.	Quantity ordered	Name of article	Engrave Call letters	Gold or Rhodium?	Price Each	Total

Total Amount \$ \_\_\_\_\_

ILLINOIS RESIDENTS ONLY ADD 5%

Name \_\_\_\_\_ sales tax \_\_\_\_\_

Amount enclosed \$ \_\_\_\_\_

Address \_\_\_\_\_

Street

RFD

P.O. Box No.

Town or City

State

Zip Code

AVAILABLE ONLY FROM

**Radio  
Amateur  
callbook, INC.**

4844 W. FULLERTON AVE.  
CHICAGO, ILLINOIS 60639

Use this handy  
**ORDER  
BLANK**

All illustrations are actual size.  
Shipped Postpaid, First Class  
Mail, in U.S.A.

© Radio Amateur CALLBOOK, INC.



# TELEGRAPHERS' ABBREVIATIONS IN CURRENT USE

— denotes short space, as in American Morse o, e; c, t; &, &S.

— denotes letters sent together, as in ar, sent . . .

aa	all after
ab	all before
abl	able
abt	about
ads,adr	address
adv	advise
af	Africa
aftrnn	afternoon
agn	again
ahd	ahead
alng	along
am	amplitude modulation
ani	any
anr	another
ant	antenna
app	appreciate
ar	end of message
as, as m	wait, wait a minute
au	fractions follow
aw	auf wiedersehn (Ger), see you later
- B -	
b	be
b4	before
balun	balanced-to-unbalanced
bc,bcl	broadcast, broadcast listener
bcnu	be seeing you
bd	buenos dias (Sp), bad
bda	birthday
bde,bo,bth	both, as in "u5 bee", up both (Morse)
bfo	beat frequency oscillator
bjr	bon jour (Fr)
bk,bkg	back,break,black,book,breaking
bkr	breaker,circuit-breaker
bn	been,brown,between,buenas noches (Sp)
bq	answer to rq (request)
brg,bng	bearing,heading
bsr	bon soir (Fr)
btr	better
buk	book
- C -	
c	yes
cd	card,could
cd,cud,cdnt	could,couldn't
cfm,cfmg	confirm,confirming
ck	check
ckt,cct	circuit
cl,clg	call,calling,closed
clbk	callback
clix	clicks
clr	clear
cndx,condx,cdx	conditions
cnt,cnti,cnty	count, county
cnvn	convention
coz,cos,cuz,beucz	because
cpi	copy
cq	general call to all stations
cs	call sign,call letters
cua,cuagn	see you again
cul	see you later
cum,cm,cmg	come,coming
cupla	a couple of
cw	continuous wave>manual keying
- D -	
da	day
dbl	double
dcl	direction
dcl	direct
de	from
df	direction finder
dif,diff	difference
dfr,dld	dealer,deliver,delivered
dn,d	down (in frequency)
dnt,dmi	do not, don't mention it
dpe	dope,information
dr	dear
ds	thanks,danke schon (Ger)
dsnt	does not
dsw	goodbye,do svdaniya (Russian)
dunno	don't know
dx	distance, or rare station
dxpdx	dx expedition
- E -	
em	old man
eh	?
el,els	antenna element(s)
em	them
eni,enibdi,enihw	any,anybody,anyhow
ere	here
es,es	and (from Morse "&", sent . . .)
eta	estimated time of arrival
etd	estimated time of departure
eu	Europe
- F -	
fb,vfb	fine business,good (enthusiastic approval)
fd	field day,feed,food
fer	for
fiver	QSA-5
fid	field,filed
flr	floor
fm,frm	from,frequency modulation
find	friend, find, found
fni	funny
foxes	teleprinter test tapes
freq,fq	frequency
fwd	forward
fyi	for your information
- G -	
ga	good afternoon,go ahead
gb	good bye
ges,gess	good day, good
gg	guess
gg	going
gl	good luck

- G - (Cont.)

gld	glad
gn,gng	gone,green,going
gnd	ground
gotta	got to,have to,must
gp	ground plane,group (word)
grs	groups (as in msg code groups)
gud	good
gtgs	greetings
gv,gvg	give,giving
- H -	
hd,hrd	had,hard,heard
hdg	heading,antenna azimuth
hed	he would
hi	high, laughter, (sometimes !)
hlo	hello
hlv	hasta la vista (Sp),see you later
hpe,hpg	hope,hoping
hpi	happy
hpn,wa hpn	happen,what happened
hq,hqtrs	headquarters
hr,hrg,hrs	here,hear,hour,hearing,here is,hours
hv,hvnt,hvg	have,haven't,haveing
hvi	heavy
hw,hws	how? how is?
- I -	
i?	ready? here goes the tape
id	I would
ie	clear? (response: i-go, e-wait)
im	I'm,him,intermodulation
imt	?
info	information
irpt	I repeat
- K -	
k	go ahead,end of transmission
ka	beginning of transmission (formal)
klx	clicks
klvb	que (ke) le vaya bien (Sp)
	"That it goes well with you"
kn	go ahead, but only the station(s) called,
	I will answer no other calls,known
knw	know
- L -	
lk	looking
ll	landline,telephone or telegraph
lng	long
lotsa	lots of
lp	long path (long way around earth)
lsn	listen
ltr	letter, later
lv,lvg	leave, leaving
lw	long wave, "lone wolf" (independent DXer)
- M -	
mag,rag	magazine
mci,mci bcp	merci, merci beaucoup (Fr), thanks
mgr	manager
mi	my
mil,mill,ma	milliamper, typewriter
min	minute, minimum
mk	mark (opposite of space)
ml,mlg	mail,mailing
mng	morning, meaning
mni	many
mnl	manual
mo	moment
msg	message
- N -	
n	no
nd	nothing doing
ng	no good
nll	nothing
nir	lazy "nil"
nm	nothing more, no more
nn	noon
no	know
nr	near, number
nvr	never
nw	now
- O -	
ob,eb	old boy
oc	old chap
ok,ek	all correct
ol	old lady
om,em	old man
op,opr	operator
opn,opg	operation, operating
ot	old timer
- P -	
pa	power amplifier
pbl,pbli	probable, preamble, probably
pctcs	practices
pd	period, paid
pdc	pure dc, clean note
pkg	package, parking
plsr	please
ppgn	propagation
ppl	people
prtbl	portable
pse,pls,psd	please, pleased
psbl,psbi	possible, possibly
psn,psn	position
pt,ptd,ptg	point, part, pointed, pointing
pwr	power
- Q -	
qhm	tuning from high frequency to middle of band
qlf	try sending with left foot awhile
qlm	tuning from low frequency to middle of band
qlz	operator too lazy
qmh	tuning from middle frequency to high frequency
qml	tuning from middle frequency to low frequency
qmt	try mailing your t/c
qmn	man-made electrical noise
qsl	mail card confirming qso
qsl	send card after receiving mine
qst	of interest to all amateurs

- R -

r	received
rac	rectified ac
rc	rag chew
rcd,rcd	received
rcr,rcr,rcvr,rx	receiver
rd	read (copy),red
rdi,rdy	ready
rdo	radio,radio station
re	concerning
reg,regs	regular, regulations
rito	righto
rm	room
rng	running
rockbound,rockbnd	crystal controlled, no vfo
rpt	report, repeat
rq	request
rst	readability 1-5, strength 1-9, tone 1-9
- S -	
sa,sez,sed,sa	say,says,said, South America
sae	self-addressed envelope
sase	self-addressed stamped envelope
sb,ssb	single sideband
sgd	signed
shd,shud,shud't	should,shouldn't
sig,signs	signal(s), signature
simo	simultaneously
sked	schedule
sl	see you later
sn	soon, seen, signal/noise
sp	short path (the closer great-circle path)
sri	sorry
ss	sweepstakes
ssn	season, as in "ssns gtgs"
stn	station
su	I'll see you
sum	some
sumbdi	somebody
svc	service
svl	several
sw	switch, short wave
sx	dollar sign "\$"
- T -	
tbl,trl	trouble
tfc	traffic, messages
thr	there, their
tmw	tomorrow
tng	tuning, thing
tnk	thank
tnsmn	transmission
tr	transit, position, there, transmit/receive
T/R	transmit/receive
trix	tricks
tt,ts	that, that is
tu,tku,tnx,tk	thank you, thanks
tv,tvi	television, television interference
twx	telegram
tx,trans	transmitter
- U -	
u,up	you, upward in frequency
ufb	vfb, very fine business (Rus)
uk	United Kingdom
ul,ud	you will, you would
undld	undelivered
unhrd	unheard
ur,urs	your, yours
ut	universal time, GMT, "Zebra" time
- V -	
va	signing off (same as sk)
vert	vertical
vfb	very fine business
vfo	variable-frequency oscillator
vjo	viejio (Sp), old man
vox	voice-operated switch
vy,vri	very
vxo	variable crystal oscillator
- W -	
w,wt	watt
wa	word after
wat,watsa	what, what do you say?
wb	word before
wd	word, would
wet	who?
wed	we would
wh	white
wid	with
wilco	will comply, will do
wk,wkg	week, weak, work, working, QSOing
wri	worry
wx,wea	weather
- X -	
xtl	crystal
xtr,xmtr	transmitter
xq	fill, or repeat of unreceived copy
- Y -	
yda	yesterday
yl,xyl	young lady, married young lady
yr	year, your
- Z -	
z	Greenwich Mean Time, UT, "zebra"
zedder	New Zealander
zi	zone of the interior (continental USA)
zilch	nothing

NUMBER CODE:		1 - a	6 - 6
		2 - u	7 - b
		3 - v	8 - d
		4 - 4	9 - n
		5 - e	0 - t

73	best wishes
88	love and kisses
99 (rare)	keep out



# RADIO AMATEUR **callbook** INC.

4844 WEST FULLERTON AVENUE, CHICAGO, ILLINOIS 60639

PHONE: Area Code 312 622-6616

Herbert J. Nelson, Publisher

## MESSAGE FROM THE PUBLISHER

We have been deeply gratified by the wide-spread approval of the new feature, class of license, now appearing in each issue of the CALLBOOK and would like to thank all those who have written in advising of a change in class or address - your interest in keeping the CALLBOOK an up-to-date directory is appreciated.

It has long been our goal to list complete amateur radio license information and after many months of work we have been able to develop a program to accomplish this goal. Incidentally, the decision to publish classes of license for radio amateurs was not influenced by the new incentive licensing program, as some may have thought.

The license of every amateur radio operator or station issued by FCC is a matter of public record and it is the CALLBOOK'S responsibility, as a service to its subscribers and to the amateur radio fraternity, to provide all information relative to the licensee's listing, pertinent to the use of his license. We would be failing in our responsibility not to provide the most complete and up-to-date information available for each listing.

The broad general purposes that are served by the federal standards for licensees are imposed by law and regulations. On the whole these standards have been accepted and supported by the great majority.

Your continuing efforts to improve amateur radio is an undertaking to be proud of and all of us, doing our part, regardless of our geographical location, will make amateur radio the finest fraternity ever assembled. To this end we are going to continue to list every call with the full, true, pertinent facts.

73,